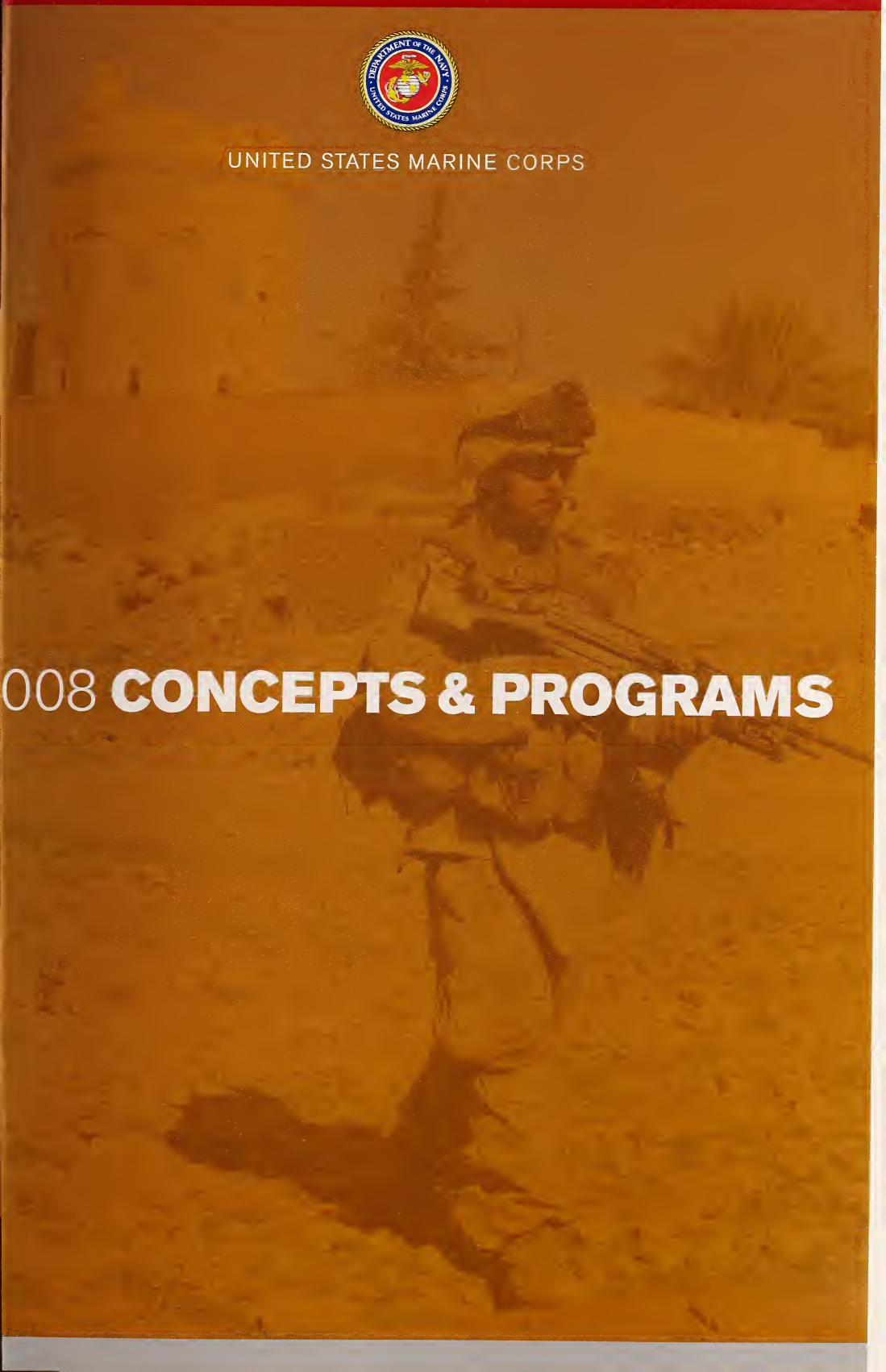


2008 UNITED STATES MARINE CORPS

CONCEPTS & PROGRAMS

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UNITED STATES MARINE CORPS



008 CONCEPTS & PROGRAMS

A Message from the Commandant of the Marine Corps



Since the birth of our Nation, our liberty has been purchased by valiant men and women of deep conviction, great courage, and bold action. Today's generation of patriots fighting for our country remain our number one priority, and their performance in the Long War has been magnificent. Undoubtedly, our recent progress in these early battles of the Long War will cause our enemies to adapt their methods of war—creating new and unforeseen challenges for us in the future. Your Corps must remain *"most ready when the Nation is least ready"*—across the full spectrum of conflict.

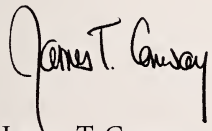
To meet our current responsibilities and to be prepared to meet the uncertainty of threats that lie ahead, we are growing our Corps to 202,000 Marines. This growth will reduce the strain on the individual Marine and permit the time needed to train and sharpen core skills to be a "two-fisted" fighting force—equally adept at counterinsurgency and traditional operations.

Associated with our growth in end strength is the parallel growth in equipment and infrastructure. Current operations continue to place harsh demands on our equipment and challenge readiness. As prudent stewards of the Nation's resources, the Corps will continue to effectively balance resetting current assets against fielding new and enhanced capabilities. Congressional support has enabled the Corps to accomplish this delicate balance and is critical for our future success in the defense of our great Nation.

Maritime forces provide our Nation unrivaled speed, flexibility, and options for deterring war and responding to crises. The recently published *Cooperative Strategy for 21st Century Seapower* provides for unprecedented partnership of Navy, Marine Corps, and Coast Guard capabilities. As a joint document of our Naval Services, this new maritime strategy articulates the integrated application of our Nation's seapower. Through Joint Seabasing and Global Presence, we will maintain our position as the Nation's premiere expeditionary Force-in-Readiness for the 21st century.

The credible combat power and operational excellence provided by the flexibility of the Marine Air Ground Task Force embarked on amphibious ships enhance our Nation's ability to deter future conflicts and win decisively when required. By far the most complex of our congressionally-mandated missions, amphibious forcible entry requires long-term resourcing and a high-level of proficiency. It is not a capability we can create in the wake of a threat.

This 2008 edition of Concepts and Programs describes our strategic direction, operational concepts, and programs we require to maintain Marine Corps' excellence across the full spectrum of operations in the 21st century. To foster a better understanding of the Corps and the marvelous Americans who fill our ranks, this book also contains facts and figures about our Marines as well as our organizations and resources.



James T. Conway
General, U.S. Marine Corps

2008 UNITED STATES MARINE CORPS
CONCEPTS & PROGRAMS

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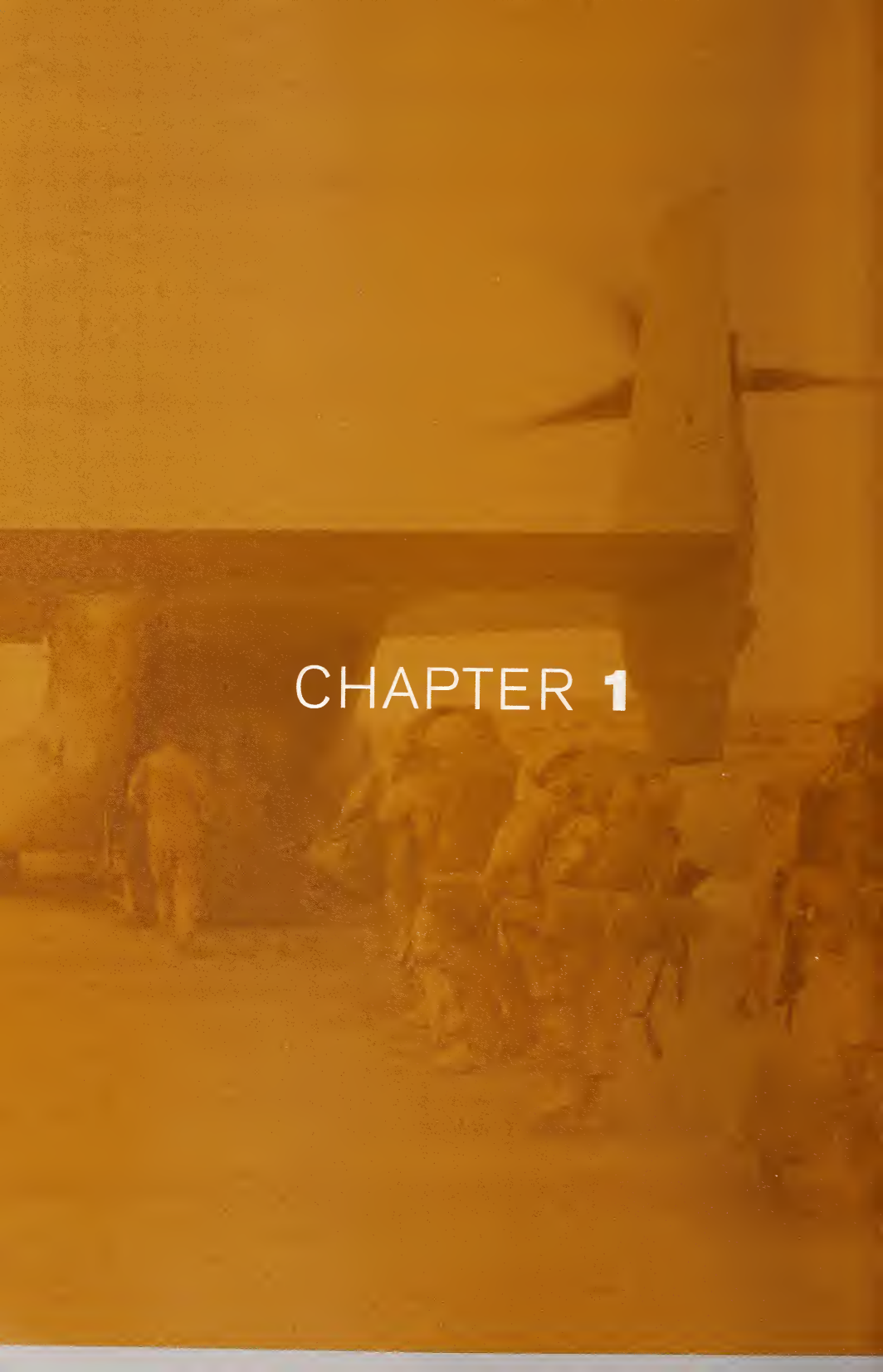
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CHAPTER 1

THE U.S. MARINE CORPS: AMERICA'S EXPEDITIONARY FORCE IN READINESS

America's Marines are fully engaged in the fight for freedom, peace and security around the globe. They are engaged in a generational struggle against those bent on destruction of our vital interests and our homeland. They are forward deployed in the opening battles of the Long War—Iraq and Afghanistan and around the world in every climate and place. ***Our Marines and Sailors, at home and in combat overseas, are our number-one priority in all that we do.*** It is through their tremendous sacrifices and those of their fellow service men and women that we will ultimately prevail.

During the past year, with 24,000 Marines deployed throughout the U.S. Central Command's Area of Responsibility, Operations Iraqi Freedom and Enduring Freedom remained our largest commitment. The Marine Corps supported surge operations in Iraq with two additional infantry battalions and their associated enabling forces. As part of the Marine Air Ground Task Force (MAGTF) in Iraq, these forces have proven extremely effective disrupting insurgent activities in the Al Anbar province.

The Marine Corps also deployed forces to participate in more than 60 Theater Security Cooperation events, ranging from small Mobile Training Teams in Central America to Marine Expeditionary Unit exercises in Africa, the Middle East and the Pacific. The Marine Corps also took part in civil-military and humanitarian assistance operations, such as New Horizons events in Nicaragua, land mine removal training in



Azerbaijan and cyclones in Bangladesh.

In October 2007, the U.S. Navy, Marine Corps and Coast Guard published their *Cooperative Maritime Strategy for the 21st Century*, which unifies America's Naval Services within a common strategic and operational framework to safeguard U.S. interests, citizens and friends wherever they might be at risk—from the homeland to operating areas throughout the world. This strategy underscores the Marine Corp's critical role as the world's foremost expeditionary warfighting organization. Our expeditionary readiness and agile combined-arms structure allow the Marine Corps to meet global demands and challenges. Our Marines continue to display to the nation and the world the meaning and importance of an "expeditionary" force with unquestionable value in the Long War.

In close collaboration with the Army, Navy, Air Force, and Coast Guard, we must be able to adapt rapidly to broad strategic dynamics as well as wide-ranging threats. ***As a Corps, we must be where our country needs us, when she needs us and to prevail over whatever challenges we face.*** To successfully carry out this mission, our focus is on the following objectives:

- Right-size the Marine Corps for today's conflict and tomorrow's uncertainty
- Reset the force and prepare for the next contingency
- Modernize for tomorrow to be "the most ready when the Nation is least ready"
- Provide our Nation a naval force that is fully prepared for employment as a MAGTF across the spectrum of conflict
- Sustain the Individual Marine and their families
- Look beyond the horizon—posture the Marine Corps for the future

These priorities are enduring and serve not only today's conflict, but also the inevitable crises that will arise in our Nation's future.

RIGHT-SIZING THE MARINE CORPS

To meet the demands of the Long War, as well as the unforeseen crises that will inevitably arise, our Corps must be a multi-capable force, manned, trained and equipped. Like the Cold War, the Long War is a long-term struggle that will be measured by our success not deployments or rotations; it is the long-term view that informs our priorities and plan for growth.

To fulfill our obligations to the nation, the Marine Corps will grow its personnel end strength to 202,000 Active Component Marines by fiscal year 2011. This increase of 27,000 Marines will enable the Corps to train to the full spectrum of

military operations and improve the ability of the Marine Corps to meet future uncertain challenges. We will recover our ability to respond fully to the Combatant Commander war plans—reducing operational risk. The current size of the Marine Corps dictates an almost singular focus on preparing units for their next rotation and counterinsurgency operations. This focus and the deployment rate of many units threaten our traditional skills, such as combined-arms maneuver, mountain warfare and amphibious operations. By increasing the deployment-to-dwell ratio, we can accomplish more comprehensive training needed to develop sophisticated skill sets that have enabled the MAGTF to consistently achieve success in any battle. Further, this growth will relieve the strain on those superb Americans who have volunteered to fight the nation's battles. There are two main components in attaining our growth goals: recruiting and retention; and increasing infrastructure and equipment.





Our recruiters have met current challenges and exceeded expectations. Through their tireless efforts we surpassed last year's goals. With more than 70 percent of our end strength increase comprising Marines in their first enlistment, our recruiting efforts are a critical part of the overall growth. While exceeding DoD quality standards, the Marine Corps continues to recruit the best of America into our ranks. In fiscal year 2007, the Marine Corps achieved more than 100 percent of both our Active and Reserve Component accession goals. We have added more recruiters to meet the fiscal year 2008 challenges and are on track to again exceed our recruiting targets this year. Additionally, we must maintain warfighting proficiency by retaining quality, experienced Marines to ensure we grow our force with proper grade and skill set mix. Incentive bonuses, our principal retention tool, have enabled the Marine Corps to achieve retention rates sig-



nificantly higher than historical norms. Our challenge in fiscal year 2008 and beyond is to achieve our annual retention goal of 5,000 Marines above the historical average.

The second major component of our growth is to provide facilities and equipment for additional Marines. We continually prioritize our requirements based on current operations and equipment needs. As a result, we have taken equipment from pre-positioned stocks to equip new units. We have also adjusted construction projects to provide training and operating facilities to new units. Finally, we have increased funding to support Public Private Venture family housing and more than tripled our fiscal year 2008 request for bachelor housing. It is imperative that we provide quality housing for our men and women who have answered the nation's call to arms. In sum, the end strength increase to 202,000 Marines addresses much more than the current conflict, it ensures the Corps will be able to more effectively deal with the spectrum of future uncertainties.

RESETTING THE FORCE

As we right-size the Marine Corps for the next contingency we must also reset our force stressed by the current conflict. Our equipment has passed the test of sustained operations, but it has been subjected to intense usage and harsh environmental conditions, resulting in escalating maintenance and increased equipment replacement. As the conflict demands more of our force, the cost of resetting equipment to ensure unit readiness increases. To ensure unit readiness and prudent use of resources, difficult choices have been made between equipment replacement and modernization with next generation equipment.

There are several challenges to our reset effort. First, industry has not always been able to keep pace with our current equipment demand. As a result, we have used pre-positioned stocks and non-deploying unit equipment to support Marines in the theaters of operations. This has forced prioritization of equipment deliveries among reset, pre-positioning stocks, and growing the force units based on urgency of need. The second chal-

lenge is the availability of equipment to be repaired by the depots. Most equipment is not rotating out of theater at the conclusion of each force rotation; it remains in combat, used on a near-continuous basis at an operating tempo that far exceeds normal peacetime usage. The depots have aggressively worked to stabilize conditions and are prepared to repair that equipment, and funding has been requested in our Global War on Terrorism (GWOT) supplemental requests to accelerate equipment rotation and repair cycles. Our cumulative reset cost estimate is $15.6 billion. As of February 2008, Congress has appropriated a total of $10.9 billion for Marine Corps reset costs. As we continue the fight, reset costs will continue to increase.



MODERNIZING FOR TOMORROW

Individual Survivability

Our modernization efforts are two-pronged. We are adapting to immediate threats and developing new equipment to enhance future capabilities. The Marine Corps continues to pursue technological advances in personal protective equipment as its highest research priority. Fully recognizing the trade-off between weight, protection, fatigue and movement restriction, we are providing Marines the latest in technological advancements in personal protective equipment—such as the Modular Tactical Vest (Body Armor), QuadGard (Arms/Legs), Lightweight Helmet (Head Protection) and Flame Resistant Organizational Gear (flame exposure). Our Marines in combat deserve nothing less.

In concert with individual equipment, we are providing the most capable force protection systems available. We are upgrading our Counter Remote-Controlled IED Electronic Warfare systems to meet rapidly evolving threats. We are enhancing our ability to combat the effects of weapons of mass destruction, and protecting our Marines worldwide, by fielding consequence management tools that complement the capabilities of our Family of Incident Response Systems and the Chemical Biological Incident Response Force. The current array of Explosive Ordnance Disposal Equipment has undergone significant modernization through enhancement of technician tool kits and greater counter-IED robotics capability and availability. The Ground/Air Task Oriented Radar system will integrate five legacy systems providing a robust expeditionary, three-dimensional air defense force protection asset for our commanders. Finally, we continue to respond to the urgent needs of forces in theater while building a solid core of enduring force protection capabilities for the future.







Ground Mobility

The Army and Marine Corps are leading joint efforts in the development of tactical wheeled vehicle capabilities. Our efforts will provide the joint force an appropriate balance of survivability, mobility, payload, networking, transportability, and sustainability. The Army/Marine Corps Board has proven a valuable forum for coordination of development and fielding strategies. The success of these efforts can be seen in the fielding of armored vehicles such as the Mine Resistent Ambush Protectant (MRAP), the Medium Tactical Vehicle Replacement with Marine Armor System, the Logistics Vehicle System with the Marine Armor Kit and the Up-armored High Mobility Multi-Wheeled Vehicle.

As we respond to immediate war fighter needs for vehicle improvements, we continue to look into the future to improve our maneuver capabilities. To enhance our unique and flexible forced entry capability we continue to develop the Expeditionary Fighting Vehicle (EFV), Marine Personnel Carrier (MPC), and Internally Transported Vehicle (ITV). These vehicles will interface with joint Army/Marine Corps efforts such as the Joint Light Tactical Vehicle (JLTV) that will provide future protected expeditionary mobility.

MAGTF Fires

Our Triad of Ground Indirect Fires provides for complementary, discriminating, and non-discriminating fires that facilitate maneuver during combat operations. The Indirect Fires Triad requires a medium-caliber artillery cannon (lightweight 155mm towed howitzer); ground-

based rockets (High Mobility Artillery Rocket System); and a mortar with greater lethality and tactical mobility than current artillery systems (Expeditionary Fire Support System).

Marine Aviation

On a daily basis, Marines rely on aircraft to provide a wide array of mission capability, including effective close air support for troops in contact with the enemy and casualty evacuation. The 2007 Marine Aviation Plan provides the way ahead for the next 10 years as it transitions squadrons from 13 legacy aircraft to six new aircraft; it incorporates individual program changes and synchronizes support of our end strength growth to these robust, Marine Expeditionary Forces (MEFs). These new aircraft include the Joint Strike Fighter (JSF), MV-22 Osprey, KC-130J, Upgraded H-1s, and CH-53Ks. Legacy aircraft production lines are no longer active—intensifying the negative impact of combat losses and increasing the urgency for funding support for our Aviation Plan to keep it on schedule.

Unmanned Aerial Systems (UAS)

The Marine Corps is aggressively pursuing improved organic UAS capabilities. At the same time, we have transitioned Unmanned Aerial Vehicle squadrons (VMU) to the RQ-7B Shadow, reorganizing force structure to support detachment-based flexibility; operating three UAS systems for each squadron; and standing up a third VMU squadron.

The Tier III UAS serves at the MEF level with speed and endurance to cover the entire MEF battlespace. Tier II UAS supports Regimental Combat Team and Marine Expeditionary Unit operations, and Tier I UAS supports battalion and below operations. This rapid transition and reorganization, begun in January 2007, will be complete by the fourth quarter of 2009. Once accomplished, it will significantly enhance organic Marine Corps UAS capability while increasing joint interoperability and commonality.

Command and Control

The distributed force concept requires greater command and control. The Marine Corps' Command and Control Harmonization Strategy marries joint integrating concepts and articulates our goal of delivering an end-to-end, fully-integrated, cross-functional capability to include forward-deployed and reach-back functions. We envision seamless support to Marines in garrison and in combat—taking the best of emerging capabilities to build a single solution that includes the Common Aviation Command and Control System (CAC2S), the Tactical Communications Modernization (TCM) program, Unmanned Aerial Systems, and Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISR-E).

PROVIDING OUR NATION A FULLY PREPARED NAVAL FORCE

The enduring value of naval expeditionary forces in protecting our homeland, preventing crises, and winning our



nation's wars is a key theme of the tri-service maritime strategy, *A Cooperative Strategy for 21st Century Seapower*. This document, together with the Naval Operations Concept, emphasizes the need to maintain enduring U.S. advantages in operational maneuver, projection of force to facilitate access and winning the battle for influence—and thus preventing conflict—is as important as our nation winning wars. An essential Naval capability for achieving these objectives is joint Sea Basing which allows ships to mate at sea using inter-connector vessels that serve as port and airfield, enabling the sea as a maneuver space, reducing our footprint ashore, and providing an over-the-horizon capability for dominant joint force operations. Critical to the development of these capabilities is the security, persistent presence, operational freedom and reach afforded by powerful amphibious forces.

Amphibious Ships

Amphibious warfare ships are the centerpiece of the Navy-Marine Corps' forcible-entry and sea-basing capability. These ships are equipped with aviation and surface assault capabilities that, coupled with their inherent survival and self-defense systems, make them ideally suited to support a broad range of mission requirements. Not only must naval forces maintain the ability to rapidly close, decisively employ and effectively sustain Marines from the sea, they must also efficiently respond to emerging Long War requirements, crisis response, and humanitarian assistance missions on short notice around the world.

The Marine Corps' contribution to the nation's forcible-entry requirement

is a single, simultaneously employed two Marine Expeditionary Brigade (MEB) assault capability—as part of a sea-based Marine Expeditionary Force. Each MEB assault echelon requires 17 amphibious warfare ships—resulting in an overall ship requirement for 34 amphibious warfare ships. However, given current fiscal constraints, the Navy and Marine Corps have agreed to assume risk by limiting the assault echelon of each MEB by using only 15 ships per MEB; in other words, a Battle Force that provides 30 operationally available amphibious warfare ships.

Maritime Preposition Force

Capable of supporting the rapid deployment of three MEBs, the Maritime Prepositioning Force is an important component of the Marine Corps amphibious warfare capability. The next evolution of this program is incorporation of the Maritime Prepositioning Force Future (MPF(F)) Squadron into the existing MPF Program. MPF(F) is a key enabler for joint sea basing and will build on the success of the legacy Maritime Prepositioning Force program. MPF(F) will provide support to a wide range of military operations with improved capabilities, such as at-sea arrival and assembly, selective offload of specific mission sets and long-term, sea-based sustainment. The MPF(F), along with two legacy MPF squadrons, will give the Marine Corps the capability to quickly generate three Marine Expeditionary Brigades in support of multiple Combatant Commanders. The MPF(F) squadron composition decision was made in May 2005; in early 2008 the program is in the concept development phase of acquisition with a Milestone B decision planned in fiscal year 2008.

Historically, Marine Corps amphibious power projection operations required a deliberate build of combat power ashore; only after establishment of a beachhead could the MAGTF begin to focus its combat power on the Joint Force's operational objective. Advances in mobility, fires and sustainment capabilities will greatly enhance operations from over the horizon—by both air and surface means—with forces moving rapidly to operational objectives without stopping to seize, defend and build up beachheads or landing zones. Keys to these advances are the EFV, MV-22, JSF and the proper number of amphibious warfare and MPF(F) ships.

The Individual Marine and Marine Families

The individual Marine is our most precious asset. Our nation's most precise, intelligent and flexible weapon system. A Marine is trained, educated, oriented and equipped to operate skillfully across a broad spectrum of tasks, blending the need for combat and counterinsurgency skills with those required for non-combat. A Marine operator's focus is on warfighting excellence and represents our link to the past and our key to the future. Accordingly, the focus of our programs to enhance their battlefield effectiveness is to provide the necessary tools for them to succeed. This "equip the man, not man the

equipment" approach has long been at the center of our force-development efforts.

Integral to our focus on our Marines is the realization that our institution is ethically bound to look after their well-being and the welfare of their families. Our Marines and families have been steadfast and faithful in their service to our country, and we have an equally enduring obligation to them.

America's Marines proudly assume the dangerous and necessary work of serving our nation. Some Marines have paid the ultimate price, and we continue to honor them as heroes who contributed so much to our country. Our casualty assistance program has and continues to evolve to ensure the families of our fallen Marines are always treated with the utmost compassion, dignity, and honor. Integral to this effort is the Wounded Warrior Regiment, activated in April 2007 to achieve unity of command and effort and to develop a comprehensive and integrated approach to Wounded Warrior care. The regiment has already implemented several programs providing "one-stop shopping" for resources and information including a Job Transition cell and a Wounded Warrior Call Center.

Traumatic Brain Injury (TBI) and Post Traumatic Stress Disorder (PTSD) continue to be a high priority concern for the Marine Corps. Commanders are fully engaged in promoting psychological health in our Marines, Sailors and family members. Our commanders bear responsibility for leading and training tough, resilient Marines and Sailors, and



for maintaining strong, cohesive units. The Marine Corps has developed hyper-realistic stress inoculation training in environments engineered to simulate, as closely as possible, the sights, sounds and smells of combat. We have also developed programs such as the Operational Stress Control and Readiness (OSCAR) program to improve access to care and reduce the stigma associated with these injuries.

The effectiveness of Marines and Sailors during deployment is dependent upon the adequacy of support provided to family members at home. Recognizing this, we are dedicating resources to improve the Marine Corps Family Team Building Program and bring it to wartime footing.

Children of service members with

special needs, to include pervasive developmental disorders, have additional medical, educational and social needs that are challenging to meet even when both parents are available. The Marine Corps provides programs such as the Exceptional Family Member program and the Educational and Developmental Intervention Services (EDIS) program.

With many of these improvements already underway, the Marine Corps continues its proud heritage of "taking care of its own" by providing necessary resources to sustain our families and our Marines for the Long War. Better management of our personnel and the support to them will also help us achieve our goal of reducing strain on individual Marines and their families.

Beyond the Horizon: Posturing the Marine Corps for the Future

The Marine Corps must continue to adapt to changing environments and anticipate the next conflict; studying history, and analyzing current operations. As we do this we develop tools to improve operations and posture ourselves to be the most ready when the nation needs us.

The lynchpin of future Marine efforts to support the engagement requirements of Combatant Commanders to build partnership capacity will be the Security Cooperation MAGTF. Similar to a Marine Expeditionary Unit but regionally focused and organized for security cooperation, Security Cooperation MAGTFs will provide training and assistance to partner nations—shaping the environment and deterring irregular adversaries.

The Long War requires a multi-dimensional force that is well trained and educated for employment in all forms of warfare. Historically, our Corps has produced respected leaders who have demonstrated intellectual agility in warfighting. Our current deployment tempo increasingly places our Professional Military Education (PME) programs at risk. No level of risk is acceptable if it threatens the steady flow of thinkers, planners and aggressive commanders who can execute effectively across the entire spectrum of operations. Through the Marine Corps University (MCU) we have made substantial improvements in our Professional Military Education programs and have significant improvements planned for the future. We have integrated irregular warfare in addition to maintaining a balance with conventional warfare so as not to lose sight of our essential core competencies. Additionally, MCU has led the way for integration of culture and language by continually refining their curricula to provide proper balance among PME, culture, and language.

As part of our ethos, we continually seek ways to improve ethical decision-making at all levels. In 2007, we implemented several initiatives to strengthen Core Values training including: increased drill instructor "foot locker talks" on values, publishing pocket-sized *Law of War, Rules of Engagement, and Escalation of Force* guides, and increased instruction at our Commander's Course on the com-

mander's role in cultivating battlefield ethics, accountability and responsibility.

To further understand the evolution of warfare, in 2007 we established the Center for Irregular Warfare as the primary Marine Corps agency for identifying, coordinating, and implementing irregular warfare capability initiatives. The Center reaches out through its Center for Advanced Operational Culture Learning (CAOCL) and Security Cooperation Education and Training Center (SCETC) to other military and civilian agencies.

To meet deployment requirements and remain skilled in the full spectrum of operations, Marines must now train to a broader range of skills. However, due to a high operational tempo, we face ever-decreasing timetables for Marines to achieve mastery of these skills. Our first major initiative to maximize effective use of limited time for training was the establishment of a standardized and well-defined Pre-deployment Training Program. Subsequently, we have instituted three additional training efforts: the Marine Combat Operations Training Group (MCTOTG); the Infantry Battalion Enhancement Period Program (IBEPP); and the Marine Aviation Training Systems Program (ATS).

In an effort to ensure realistic training we are evaluating future improvements to our training facilities. The Marine Corps currently lacks a comprehensive training capability to exercise all elements of a MAGTF in an environment that replicates operational conditions with our current equipment—as our new weapons systems



have greatly increased ranges compared to legacy systems. We are studying expansion of our Marine Corps Air Ground Combat Center in Twentynine Palms, California. This will give us the maneuver space to simultaneously train three to four battalions in this range complex and train with our current equipment.

Finally to improve forward presence, we continue to evaluate our foreign bases around the globe. Our recent force posture agreement reached under the auspices of the Defense Posture Review Initiative with Japan facilitates effective employment of Marine Corps forces while mitigating effects of encroachment around United States facilities in Japan. The most significant Defense Posture Review Initiative is completion of the Futenma Relocation Facility on Okinawa, Japan. Its progress is linked to the shifting of KC-130s from Futenma to Iwakuni, Japan, and movement of approximately 8,000 Marines and their family members from Okinawa, Japan to Guam.

OUR WAY AHEAD

While ever-ready to respond to major combat operations, the future holds a



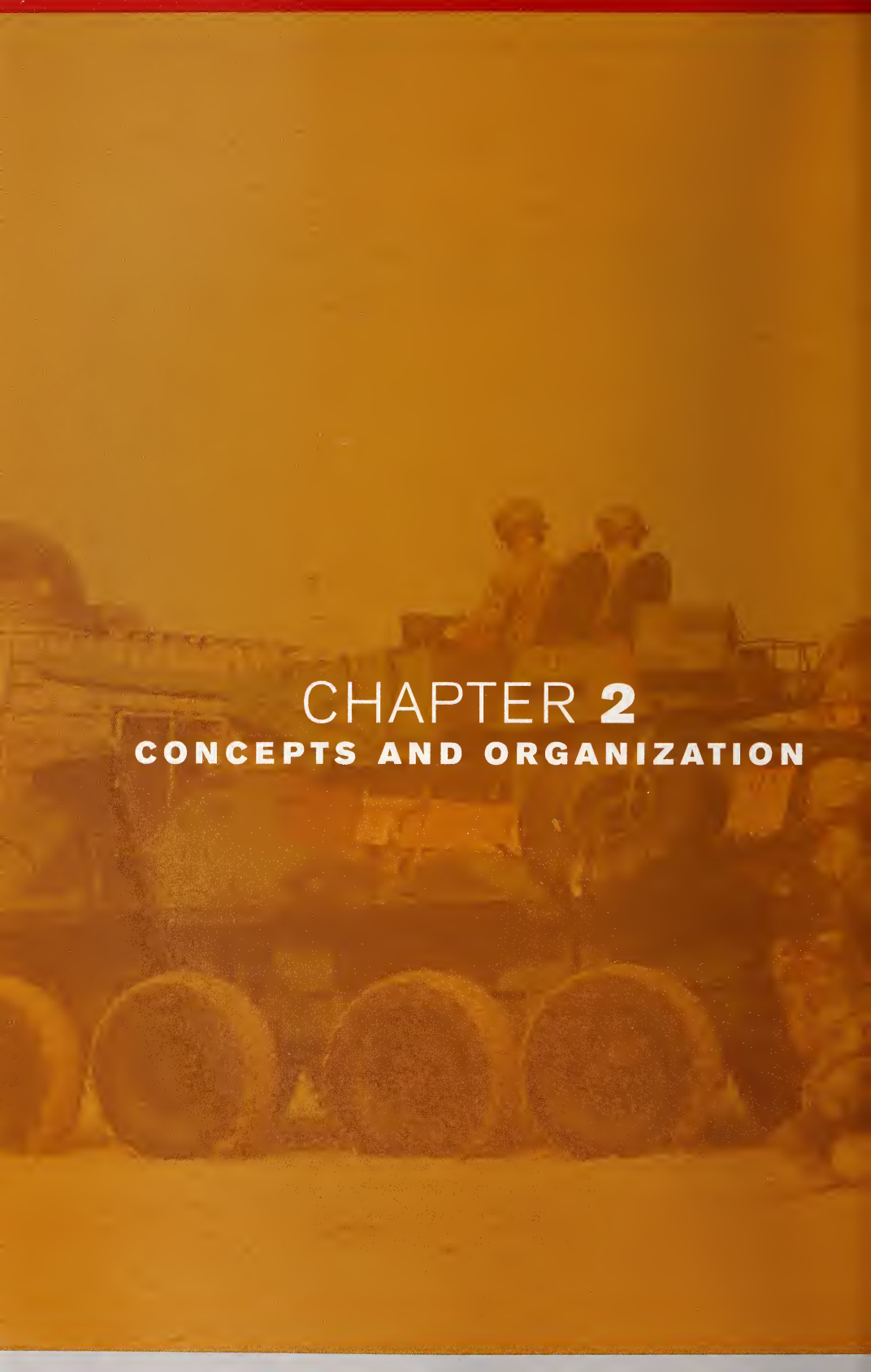
greater likelihood of irregular wars fought in urban environments, against thinking enemies using asymmetric tactics. Our experiences in Iraq and Afghanistan, particularly, underscore the future we face. We will adapt our tactics, techniques and procedures as well as technology to enhance our capabilities to succeed in these environments. The *Cooperative Strategy for 21st Century Seapower* articulates the strategic framework for America's Sea Services—the Navy, Marine Corps and Coast Guard—to carry out operations that strengthens peace and security throughout the world. With the Navy and Coast Guard our nation's Marine Corps will be providing far-reaching naval expeditionary capabilities for global security, peace and prosperity.

We are a Marine Corps that celebrates its culture and ethos, but is never satisfied with its current capabilities and operational performance. We are a learning organization, one that embraces innovation and improvement in order to increase its effectiveness as part of the joint force. A fundamental principle is that we fight as combined-arms teams, seamlessly integrating our ground, aviation and logistics forces. We exploit the speed, flexibility and agility inherent in our combined-arms approach to defeat traditional, terrorist and still ill-defined threats to our nation's security. We thrive in unpredictable environments in which



our forces are employed. We must ensure that our personnel policies, organizational construct, and training support operating at a high sustained "rate of fire."

This nation has high expectations of her Corps—as she should. America's Marines are answering their call around the globe and performing with distinction in the face of great hardships. As they continue to serve in harm's way, our moral imperative is to fully support them—we owe them the full resources required to complete the tasks we have given them. Now more that ever they need the sustained support of the American people as we simultaneously right size our force, reset the force during an extended war, modernize to face the challenges of the future and fulfill our commitment to Marine families.

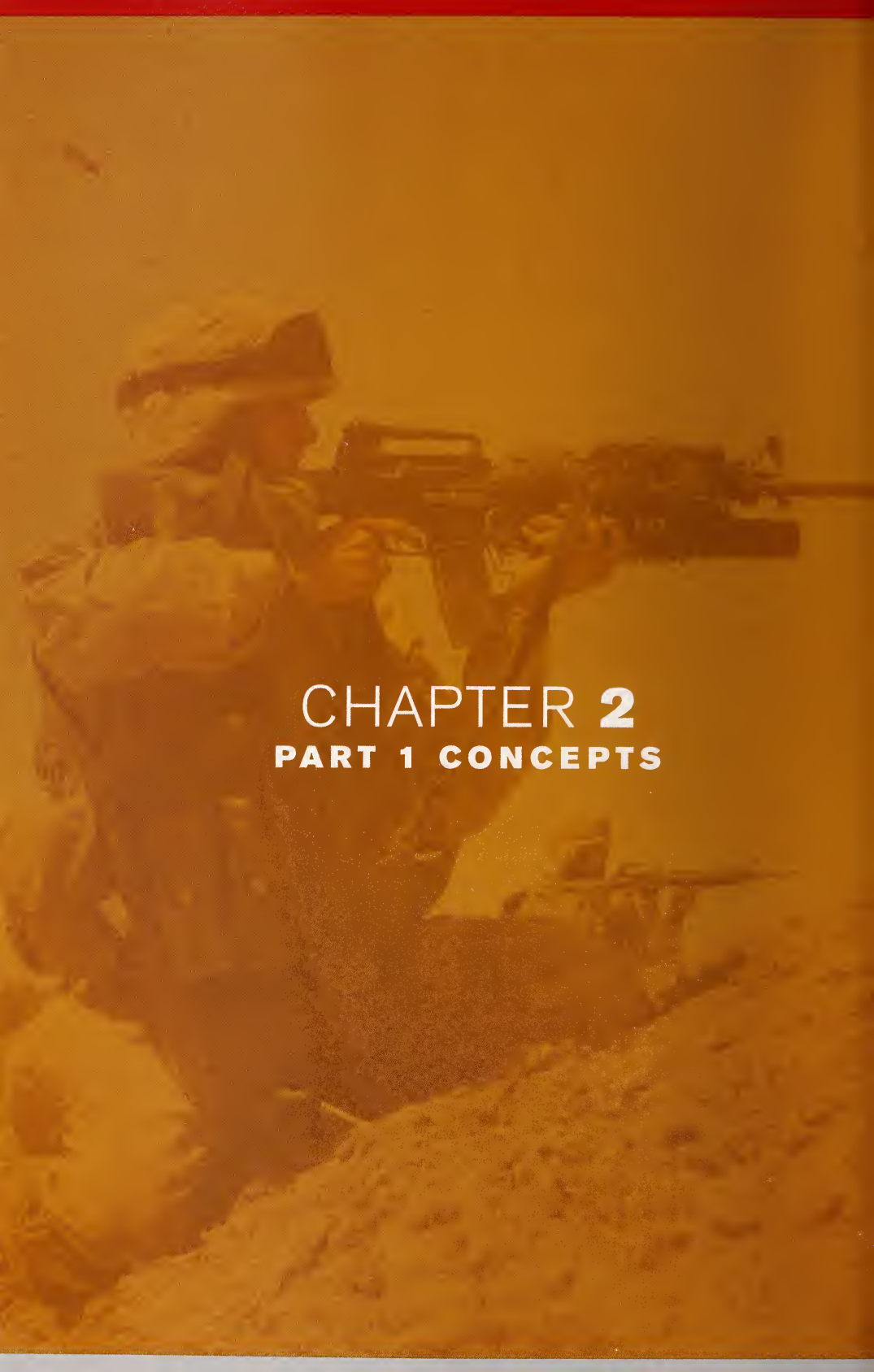


CHAPTER 2
CONCEPTS AND ORGANIZATION

CONCEPTS AND ORGANIZATION

INTRODUCTION

The Navy-Marine Corps Team is engaged in a focused, long-term transformation that will allow us to respond to a changing national security environment.This transformation is dedicated to greatly expanding the worldwide, sovereign options available to the President of the United States across the full spectrum of warfare, by exploiting one of our nation's asymmetric advantages, control of the sea. To this end, this chapter addresses our current warfighting concepts.



CHAPTER 2
PART 1 CONCEPTS



WARFIGHTING CONCEPTS

The Marine Corps has worked to develop partnerships with the U.S. Navy and Coast Guard to produce products of a singular vision that ultimately support the National Defense Strategy. The resulting seminal documents, *A Cooperative Strategy for 21st Century Seapower, Naval Operations Concept 2006* (NOC), and the *Marine Corps Operating Concepts for a Changing Security Environment* (MOC), provide a central strategic direction for the development of naval forces supported by a series of supporting and emerging concepts that include joint seabasing, counterinsurgency operations, small unit leader and individual development guides. This hierarchy of operational concepts enables the Marine Corps to effectively respond to a rapidly changing security environment by exploiting the nation's asymmetric advantages in sea control.

SEMINAL CONCEPTS

A Cooperative Strategy for 21st Century Seapower articulates the unified maritime strategy of America's Sea Services—the U.S. Navy, Marine Corps and Coast Guard. Published on 17 October 2007, it "stresses an approach that integrates seapower with the other elements of national power, as well as those of our friends and allies, to

protect our way of life and sustain the global, interconnected system through which we prosper." In addition to protecting the homeland and winning our Nation's wars, the strategy declares that the sea services must enhance "our ability to prevent war, win the long struggle against terrorist networks, positively influence events, and ease the impact of disasters."

The maritime strategy calls for a more integrated approach to how maritime forces are employed in order to meet the needs of the combatant commanders. It notes that "Marines will continue to be employed as air-ground task forces operating from amphibious ships to conduct a variety of missions, such as power projection, but they will also be employed as detachments aboard a wider variety of ships and cutters for maritime security missions. Sailors, Marines and Coast Guardsmen teamed in various combinations of security forces, mobile training teams, construction battalions, health services, law enforcement, and civil affairs units to conduct security cooperation and humanitarian assistance missions, illustrate adaptive force packaging."

The ***Naval Operations Concept 2006 (NOC)*** elaborates further on the idea of increasing the capability and capacity of the Navy and Marine Corps for an expanded range of missions by adaptively task organizing current and emerging forces into closely integrated packages tailored to meet the varied and competing demands of the combatant commanders. Toward that end, the NOC provides guiding naval principles, a common outlook and approach, and methods for promoting greater organizational and operational flexibility.



Coupled with the ***Cooperative Strategy for 21st Century Seapower*** and the NOC, ***Marine Corps Operating Concepts for a Changing Security Environment (MOC)*** builds upon our conceptual foundation for littoral power projection provided by the *Operational Maneuver from the Sea* (OMFTS) concept published in the 1990s. Recent history has proven many of the ideas espoused in the OMFTS family, such as the "three-block war," remarkably insightful.

The MOC represents an evolution of, vice departure from, OMFTS based on lessons earned through innovation and experimentation, our understanding of the post-9/11 security environment, revised national strategy documents, and recent operational experience. The MOC highlights OMFTS and two other operational concepts, *Seabasing* and *Distributed Operations*, as critical to successful imple-

mentation of the operating concepts it puts forth.

The Seabasing concept is key to the integration of joint forces and forms the centerpiece for projecting and sustaining military force in support of national policy. It assures joint access by leveraging the operational maneuver of sovereign, distributed and networked forces operating globally from the sea.

The MOC describes how Marine Corps forces must be organized, based, trained, and equipped for effective employment across the full range of strategic challenges from traditional to nontraditional.

The maritime strategy, NOC and MOC together call for more widely distribued forces providing increased forward presence, security cooperation with an expanding set of international partners, prevention or preemption of nontraditional threats, and a global response to crisis in spite of challenges to access, without forfeiting our ability to conduct forcible entry and combat operations. Collectively, these documents provide a comprehensive and unified direction for our capability development efforts.

SUPPORTING CONCEPTS

Countering Irregular Threats, published in June 2006, is focused above the company level and is the Marine Corps' foundational document for multi-service, joint, and multi-agency partnerships in a counterinsurgency environment.

Functional Fitness, published in November 2006, espouses the idea that operations in a complex and uncertain environment heighten the need for an institutionalized combat conditioning program. This concept lays out the tenants for a program that improves general



physical conditioning by treating Marines like athletes, prepares Marines for the physical actions and rigors of combat and for the effects of wearing of combat equipment continuously, and provides injury proofing and exercises that speed recovery time through active recovery methods.

Interagency Campaign Design, published in July 2007, develops an initial understanding of the need for holistic government solutions in complex operating environments. It indicates that some branches of the U.S. Government may be better suited to deal with challenges and develop more thorough solutions than the military. Whether these areas are infrastructure development or diplomacy, this concept is intended to help leaders understand how to engage in interagency campaign problem solving and explore operational learning. Moreover, it stresses the need for a common vocabulary, necessary for developing a successful interagency effort.

Tactical Perception, published in July 2007, espouses that all Marines must have an appreciation for the role they play in shaping perception in a war among the people. Additionally, it states that Marines must develop understanding to guide their actions across a broad spectrum of areas to include society, culture, religions, politics and economics. It also explains how generating favorable perceptions of our efforts comes from the integration of the message communicated by the day-to-day tactical actions of Marines, technical information operations, employment of over-arching themes and the strategic communications plan.

Combat Stress, published in July 2007, talks to many of the key issues currently affecting Marines at all levels. Moreover, this guide gives leaders tips and signs for both prevention and treatment. This concept was written to be a discussion and teaching tool for Marines of all grades, and covers the sharpening of Marines at the right times to the dimensions of urban combat, to include the moral and physical. It also addresses the small unit leader's actions to support psychologically injured Marines and the importance of values, ethics and morals.

EMERGING CONCEPTS

Send in the Marines is an emerging Marine Corps employment concept to meet the future security environment. It focuses on the demands of the Long War and expands and formalizes the lower end of the expeditionary force spectrum to increase and sustain an expanded forward presence. Built largely around a new Security Cooperation Marine Air-Ground Task Force (SC MAGTF), this concept helps address the Navy and Marine Corps challenge to enhance our ability to conduct non-traditional missions while simultaneously remaining capable of traditional naval missions. The concept calls for regularly training and deploying SC MAGTFs in excess of the 3 MEUs that were the norm before Operations Enduring Freedom and Iraqi Freedom.

The SC MAGTFs are mission-tailored maritime forces that will be distributed globally to promote cooperative relationships, prevent and mitigate disruptions, and to contribute to in-depth defense of the homeland. Similar to a Marine Expeditionary Unit (MEU) the SC MAGTF would have firepower capacity commensurate with its requirements to provide

training to less developed military forces. The SC MAGTFs will deploy on a 1:2 deployment to dwell cycle and further disaggregate into smaller elements and as required, the Marines of the SC MAGTF will be available for assisting in the development of civil society in ungoverned and under-governed spaces, denying sanctuary to an enemy, conducting operational preparation of the environment, waging ideological warfare, and interdicting terrorists and other irregular enemies.

Marine Corps Advisor is an emerging concept which will significantly enhance the options available to the regional combatant commanders to help meet requirements for building partner capacity. Recent experiences in Iraq and Afghanistan have led to the recognition that the Marine Corps needs a more robust capability to provide security assistance. This increased capability will be provided through a more formalized and systematic development of Marine Corps advisors.

A Marine Corps Training and Advisor Group (MCTAG) was established in October 2007 to better address staffing and sourcing requirements for operations in Iraq and Afghanistan. The MCTAG will source the Marine Corps' capability to support advisory requirements and complement the SC MAGTFs. An embryonic capability now, it will eventually grow to constitute a cadre of several hundred trained advisors available to help meet combatant commander's security assistance requirements.

The SC MAGTFs and the MCTAG will provide combatant commanders with more flexible force employment options to augment the traditional capabilities provided by the Marine Corps across a broad array of missions.

The Strategic Corporal concept is about preparing all Marine leaders to handle the full spectrum of missions that they will be expected to tackle in an uncertain world. From large scale amphibious landings to the gritty reality of urban combat to feeding earthquake victims, Marines must be prepared to meet the Nation's challenges when the Nation is least ready. This means we must institutionally prepare the individual Marine to simultaneously provides assistance, de-



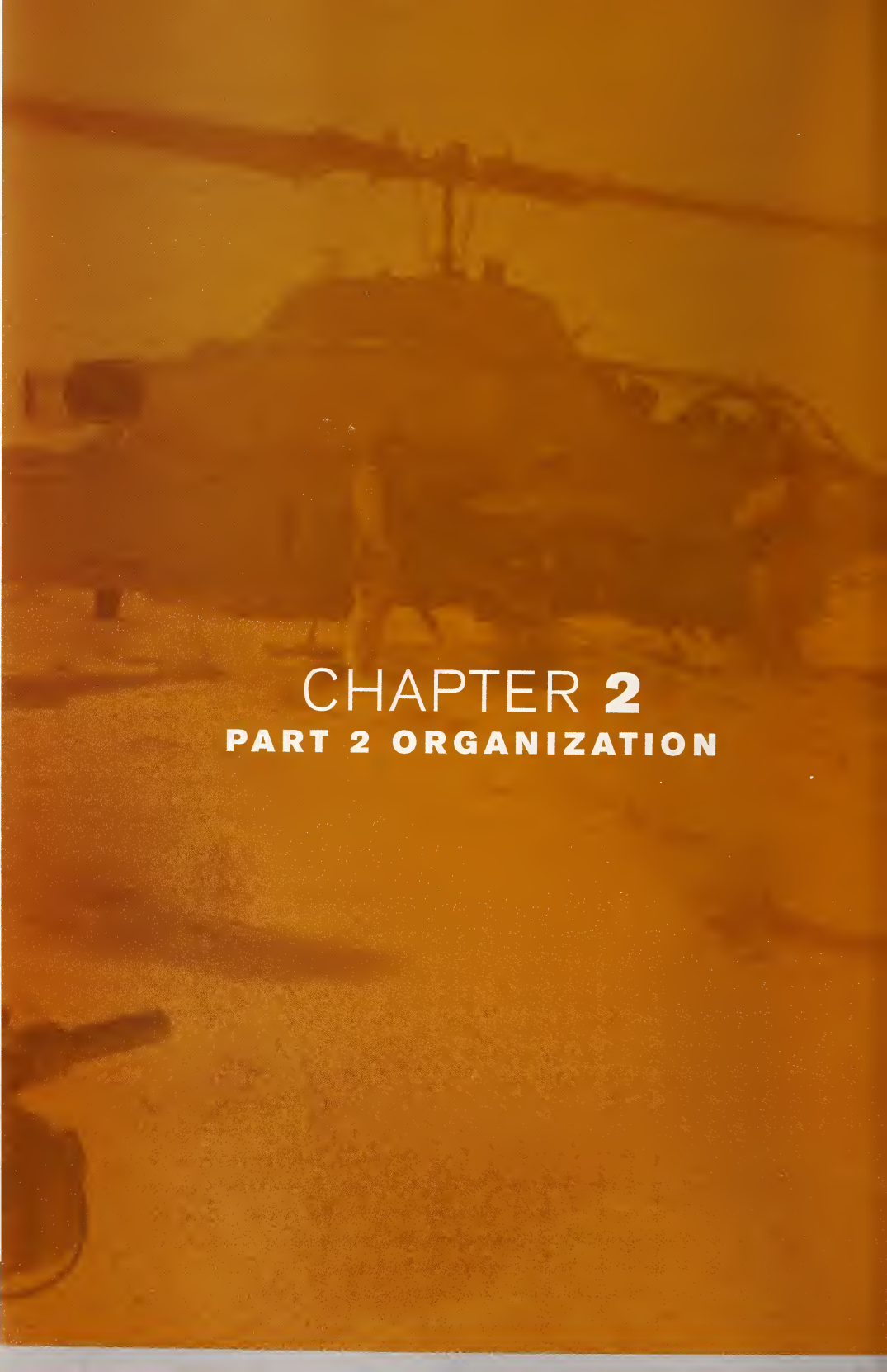
velop and train foreign forces, conduct peace operations and ultimately deter/defeat adversaries in open conflict.

Small unit leaders are the key to this success and to this end, the Marine Corps must continue to prepare them both in mind and body. Small unit leaders must be trusted by their leadership, culturally and tactically adaptive, savvy in both customs and languages, technically and tactically proficient, physically hard, capable of meeting ethical and emotional challenges and ready to transition missions quickly. These expectations are not easily met, but they are reasonable, as Marines are meeting these requirements today



around the world. To meet these challenges it is incumbent upon our institutions to increasingly prepare our Marines for the full spectrum of challenges without losing our core competencies at the high end of the spectrum of conflict.

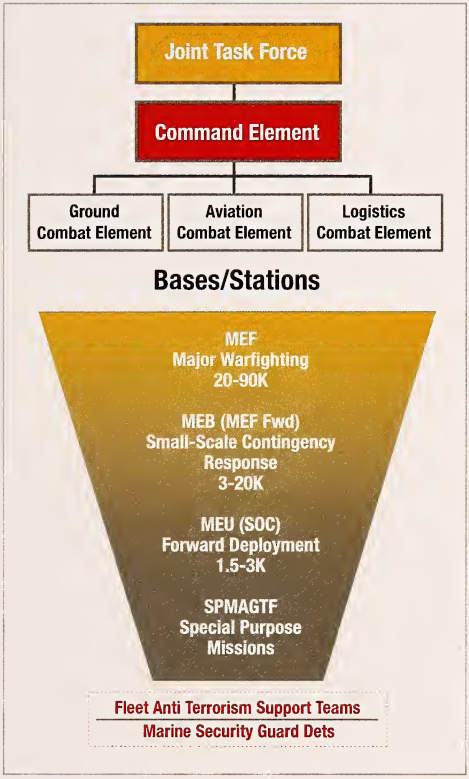
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CHAPTER 2
PART 2 ORGANIZATION

MARINE AIR GROUND TASK FORCE (MAGTF)





The MAGTF is the Marine Corps' principle organization for conducting missions across the spectrum of military operations. MAGTFs provide combatant commanders or joint task force commanders with scalable, versatile expeditionary forces able to respond to a broad range of crisis and conflict situations. They are balanced, combined-arms force packages containing organic command, ground, aviation, and sustainment elements. A single commander leads and coordinates this combined-arms team from peacetime training through deployment. MAGTF teams live and train together, further increasing their cohesion and fighting power.

MAGTF CAPABILITIES

The naval character of MAGTFs enhances their global mobility, lethality, and staying power. Embarked aboard amphibious ships, forward-deployed MAGTFs provide U.S. civilian and military leaders with the ability to do the following:

- Move forces into crisis areas without revealing their exact destinations or intentions;
- Provide continuous presence from secure sea bases in international waters;
- Provide immediate national response in support of humanitarian and natural-disaster relief operations;
- Provide credible but non-provocative combat power over-the-horizon of a potential adversary for rapid employment as the initial response to crisis;
- Support diplomatic processes for peaceful crisis-resolution before employing immediate response combat forces;
- Project measured degrees of combat power ashore—at night and under adverse weather conditions, if required;
- Introduce additional forces sequentially into a theater of operations;
- Operate independent of established airfields, basing agreements, and over-flight rights;
- Conduct combat operations ashore, using

inherent combat service support that is brought into the theater of operations;

- Enable the introductions of follow-on MAGTF or joint and/or combined forces by securing staging areas ashore;
- Operate in rural and urban environments, and during hostile nuclear, biological, and chemical situations;
- Withdraw rapidly at the conclusion of operations or remain to help restore stability to the affected areas; and,
- Plan and commence execution of a mission within six to 48 hours of receiving a warning order.

Along with the MAGTF, other special-purpose forces introduce additional depth to Marine Corps capabilities in support of joint operations.

MAGTF COMPOSITION

The Marine Corps task-organizes for combat in accordance with its statutory mandate to "...provide forces of combined arms, including aviation..." by forming integrated, combined-arms MAGTFs. As the name indicates, MAGTFs are task-organized and specifically tailored by mission, as well as for rapid deployment by air and/or sea. However, no matter what their mission or mode of deployment, MAGTFs are comprised of four deployable elements, supported by the fifth element—our bases and stations.

Command Element (CE): The CE contains the MAGTF headquarters and other units that provide intelligence, communications, and administrative support. As with all other elements of the MAGTF, the CE is scalable and task-organized to provide the command, control, communications, computers, intelligence (C4I), and joint interoperability necessary for effective planning and execution of operations.

Ground Combat Element (GCE): The GCE is task-organized to conduct ground operations to support the MAGTF mission. This element includes infantry, artillery, reconnaissance, armor, light armor, assault amphibian, engineer, and other forces, as needed. The GCE can vary in size and composition. It can consist of a light, air-transportable battalion; a relatively heavy and mechanized unit that includes one or more Marine, Army, or allied divisions; or, another type of Marine Corps ground combat unit that meets the demands of a particular mission.



Aviation Combat Element (ACE): The ACE conducts offensive and defensive air operations and is task-organized to perform those functions of Marine aviation required to support the MAGTF mission. This element is formed around an aviation headquarters with appropriate air-control agencies, combat, combat support, and combat service support units. The ACE can vary in size and composition from an aviation detachment of specifically required aircraft to one or more Marine Aircraft Wings (MAWs).

Logistics Combat Eement (LCE): The LCE is task-organized to provide the full range of combat logistics functions and capabilities necessary to maintain the continued readiness and sustainability of the MAGTF as a whole. It is formed around a combat service support headquarters and may vary in size and composition from a support detachment to one or more Marine Logistics Groups (MLGs).

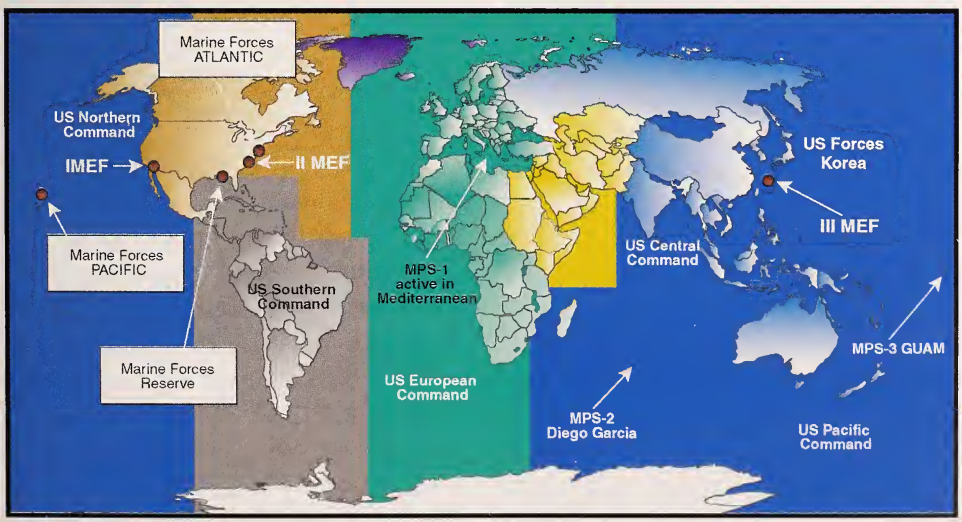
TYPES OF MAGTFS

Four types of MAGTFs can be task-organized as follows: the Marine Expeditionary Force, Marine Expeditionary Brigade, Marine Expeditionary Unit (Special Operations Capable), and Special Purpose.

Marine Expeditionary Force (MEF): The MEF is the principal Marine Corps warfighting organization, particularly during larger crises or contingencies. It is normally commanded by a lieutenant general. A MEF can range in size from less than one to multiple divisions and aircraft wings, together with one or more Marine Logistics Groups. Equipped with 60 days of supplies, MEFs are capable of both amphibious operations and sustained operations ashore in any geographic environment. With appropriate augmentation, the MEF command element is capable of performing as a Joint Task Force (JTF) headquarters.

MEFs are the primary "standing MAGTFs" that exist in peacetime, as well as wartime. Currently, the Marine Corps is organized with three standing MEFs, each with a Marine Division (MARDIV), MAW, and MLG. The 1st Marine Expeditionary Force (I MEF) is located at bases in California and Arizona. The 2nd Marine Expeditionary Force (II MEF) is located at bases in North Carolina and

Locations of MEFs, Maritime Prepositioning Ship Squadrons, and MARFORS



South Carolina. The 3rd Marine Expeditionary Force (III MEF) is based in Okinawa, mainland Japan, and Hawaii.

MEFs remain the "cradles" or "reservoirs" from which all other Marine Corps capabilities emanate. Marine component headquarters, MARFORCOM or MARFORPAC, may form smaller MAGTFs from these MEFs. A MEF will normally deploy in echelon and will designate its lead element as the MEF (Forward).

Marine Expeditionary Brigade (MEB): The MEB is the mid-sized MAGTF (up to 20,000 Marines) that is normally commanded by a brigadier general. The MEB provides transitional capability between the forward-deployed MEU and the MEF, which is our principal warfighting force. A reinforced infantry regiment, a composite Marine Aircraft Group (MAG), and a Combat Logistics Regiment (CLR) will comprise a notional MEB. The command element of the MEB is embedded within the command element of its parent MEF; the deputy MEF commander serves as the MEB commander.

MEBs provide supported combatant commanders with a scalable, warfighting capability across the spectrum of military operations. As an expeditionary force, it is capable of rapid deployment and employment via amphibious shipping (normally 15 amphibious ships, including five large-deck amphibious assault ships), strategic air/sea-lift, geographic or maritime pre-positioning force assets, or any combination thereof. With 30 days of accompanying supplies, MEBs can conduct amphibious assault and sustained operations ashore in any geographic environment.

A MEB can operate independently or serve as the forward echelon of a MEF. With additional MEF Command Element augmentation, a MEB is also capable of acting as a JTF headquarters. Currently, the 1st, 2nd, and 3rd MEB Command Elements are embedded within the CEs of I, II, and III MEF, respectively.

Marine Expeditionary Unit (Special Operations Capable), or MEU(SOC): Forward-deployed MEU(SOC)s embarked aboard Expeditionary Strike Groups (ESGs) operate continuously in the areas of responsibility of various unified combatant commanders. These units provide the President and the unified combatant commanders with forward-deployed units that can conduct a variety of quick reaction, sea-based, crisis-response options in either a conventional amphibious/expeditionary role or in the execution of maritime special operations.

The MEU is commanded by a colonel and deploys with 15 days of accompanying supplies.

Prior to deployment, a MEU undergoes an intensive six-month training program, focusing on its conventional and selected maritime special operations missions. The training culminates with a thorough evaluation and certification as "Special Operations Capable." In addition to possessing conventional capabilities, MEU(SOC)s are augmented with selected detachments to provide enhanced capabilities. These special capabilities include:

- Amphibious operations;
- Direct action;
- Tactical recovery of aircraft and personnel;
- Intelligence, surveillance, and reconnaissance;
- Airfield/port seizure;
- Non-combatant evacuations;
- Humanitarian aid/disaster relief; and,
- Supporting arms coordination.

COMMARFORCOM and COMMARFORPAC routinely maintain foward-deployed MEU(SOC)s in the Mediterranean, Arabian Gulf, and Pacific regions.

Special Purpose MAGTF (SPMAGTF): A SPMAGTF is task-organized to accomplish a specific mission, operation, or regionally focused exercise. As such, SPMAGTFs can be organized, trained, and equipped to conduct a wide variety of expeditionary operations, ranging from crisis-response to training exercises and peacetime missions. They are designated as SPMAGTF with a mission, location, or exercise name, for example, "SPMAGTF (X)," "SPMAGTF Somalia," "SPMAGTF UNITAS," or "SPMAGTF Dade County." Their duties cover the spectrum from non-combatant evacuation to disaster relief and humanitarian missions.

MAGTF SUSTAINABILITY

A fundamental characteristic of a MAGTF is its ability to operate for extended periods as an expeditionary force, relying on internal resources for sustainment. All MAGTFs have inherent sustainability that allows them to be self-sufficient for planned periods. Larger MAGTFs have a deeper, broader, and more capable organic support capability. Different sized MAGTFs deploy with sufficient accompanying supplies to support joint operations.

MAGTFs can augment their organic sustainability by using external support from Navy organizations, host nation support (HNS) agreements, inter-service support agreements (ISSAs), and in-theater cross-service support.



MARITIME PREPOSITIONING FORCE (MPF)

The Maritime Prepositioning Force is a strategic power-projection capability that combines the lift capacity, flexibility, and responsiveness of surface ships with the speed of strategic airlift. Strategically positioned around the globe, the Maritime Pre-positioning Ships (MPS) of the MPF provide Geographic Combatant Commanders (GCC) with forward presence and rapid crisis-response. The MPF is organized into three Maritime Prepositioning Ships Squadrons (MPSRON): MPSRON-1, based in the Mediterranean; MPSRON-2, based at Diego Garcia in the Indian Ocean; and, MPSRON-3, based in the Guam-Saipan area. These three interoperable MPSRONs are each designed

to couple with a Fly-In-Echelon (FIE) to support the rapid closure of a Marine Expeditionary Brigade (MEB). MPF can also support smaller or larger MAGTFs by employing as few as one or as many as 16 MPS.

When needed, these ships move to a crisis region and offload either in port or in-stream. Offloaded equipment and supplies are then married up with Marines arriving at nearby airfields. The end result is a combat-ready MAGTF rapidly established ashore, using minimal reception facilities. The MAGTF combat capability provided by MPF supports GCC military operations that defeat adversaries and win wars, but can also support regional crises that involve humanitarian assistance and disaster relief.

MAGTF deployment planning and training is conducted by the Commanding Generals, II MEF (MPSRON 1); I MEF (MPSRON 2); and III MEF (MPSRON 3). The Commander, Marine Corps Logistics Command (MARFORLOGCOM) primarily through Blount Island Command (BICMD) is responsible for obtaining, prepositioning, and maintaining MPF supplies and equipment. This is conducted in conjunction with operating forces through a maintenance cycle program conducted at the BICMD facility in Jacksonville, FL. The MPS are government owned or long term leased and operated under charters to Military Sealift Command (MSC).

UNIQUE UNIFIED COMMANDER SUPPORT

A combatant commander or subordinate joint force commander may also require Marine forces that do not possess all elements of a MAGTF. These forces are not given a MAGTF designation. Examples are installation security forces, engineer and medical support teams for humanitarian operations, deployments for training, law enforcement operations, and mobile training teams. In these cases, forces will be designated by the name of the senior headquarters having operational control, for example, 1st Combat Engineer Battalion (Rein), 1st Marine Division.

OTHER SPECIAL-PURPOSE MARINE CORPS FORCES

The MAGTFs discussed above provide a continuum of capabilities to support naval, unified combatant commander, and national requirements. These MAGTFs are joined by other unique Marine forces to help the Corps deal with a full range of conventional and unconventional threats and assignments.

AIR CONTINGENCY FORCES

Both COMMARFORPAC and COMMARFORLANT maintain Air Contingency MAGTFs (ACM) in a continuous state of readiness. ACMs are air-deployable forces available to the unified combatant commanders, whose lead elements are prepared to deploy on short notice. The ACMs provide great versatility in

that they can be used as part of the fly-in echelon of a MPF, as reinforcement for an amphibious force, or as the lead element of a MEF.

The ACM will be task-organized to meet the mission, the threat, and airlift availability. The size of the GCE can range from a reinforced rifle company plus a battalion headquarters element, to a regimental-size force consisting of a regimental headquarters, two infantry battalions, a two-battery artillery battalion, a two-platoon reconnaissance company, a two-platoon engineer company, and appropriate aviation and logistics combat elements.

MARINE CORPS PREPOSITIONING PROGRAM – NORWAY (MCPP-N)

Marine Corps Prepositioning Program-Norway enhances all Geographic Combatant Commanders (GCCs) operational responsiveness by providing mission-tailored, prepositioned war reserve materiel that supports global Marine Corps expeditionary operations up to military operations other than war not involving use/threat of force, i.e., lower end of the range of military operations. MCPP-N's prepositioned war reserve materiel is stored in six caves sites and two airfields throughout Norway and is available for rapid preparation and marshalling to aerial/sea/rail ports of debarkation in support of deploying MAGTFs. Forward prepositioned war reserve materiel reduces reaction time and CONUS-based lift requirements.

SUPPORTING ESTABLISHMENT

Marine Corps bases and stations, often referred to as the 5th element of the MAGTF, consist of those personnel, bases, and activities that support the Marine Corps' operating forces. This infrastructure consists primarily of 15 major bases and stations in the United States and Japan, as well as the personnel, equipment, and facilities required to operate them.

The supporting establishment also includes the Marine Corps Recruiting Command, Marine Corps Combat Development Command, and Marine Corps Logistics Command, as well as all training activities and formal schools. Additionally, the establishment includes those civilian activities and agencies that support the Marine Forces.

MARINE CORPS TOTAL FORCE

There is a direct relationship between the size of the Marine Corps and the contribution made to our national defense. Large-scale deployments, operations, and training exercises with allies are part of our training and presence requirements in peacetime. A large percentage of our operating forces are forward-deployed in support of the Global War on Terrorism (GWOT), operations in the Arabian Gulf, and many other U.S. efforts and commitments. This has led to a high-deployment tempo and the demand for a sufficient rotation base back in the United States. This requirement will likely continue for the foreseeable future.

HOW THE MARINES ARE ORGANIZED

The United States Marine Corps is organized as a "force-in-readiness," one that is able to support a wide range of national military requirements. The service is divided into three broad categories:

- Headquarters Marine Corps;
- Operating forces; and,
- Reserves.

HEADQUARTERS MARINE CORPS

Headquarters, US Marine Corps (HQMC) consists of the Commandant of the Marine Corps and those staff agencies that advise and assist him in discharging his responsibilities prescribed by law and higher authority. The Commandant is directly responsible to the Secretary of the Navy for the total performance of the Marine Corps. This includes the administration, discipline, internal organization, training, requirements, efficiency, and readiness of the service. The Commandant also is responsible for the operation of the Marine Corps material support system.

OPERATING FORCES

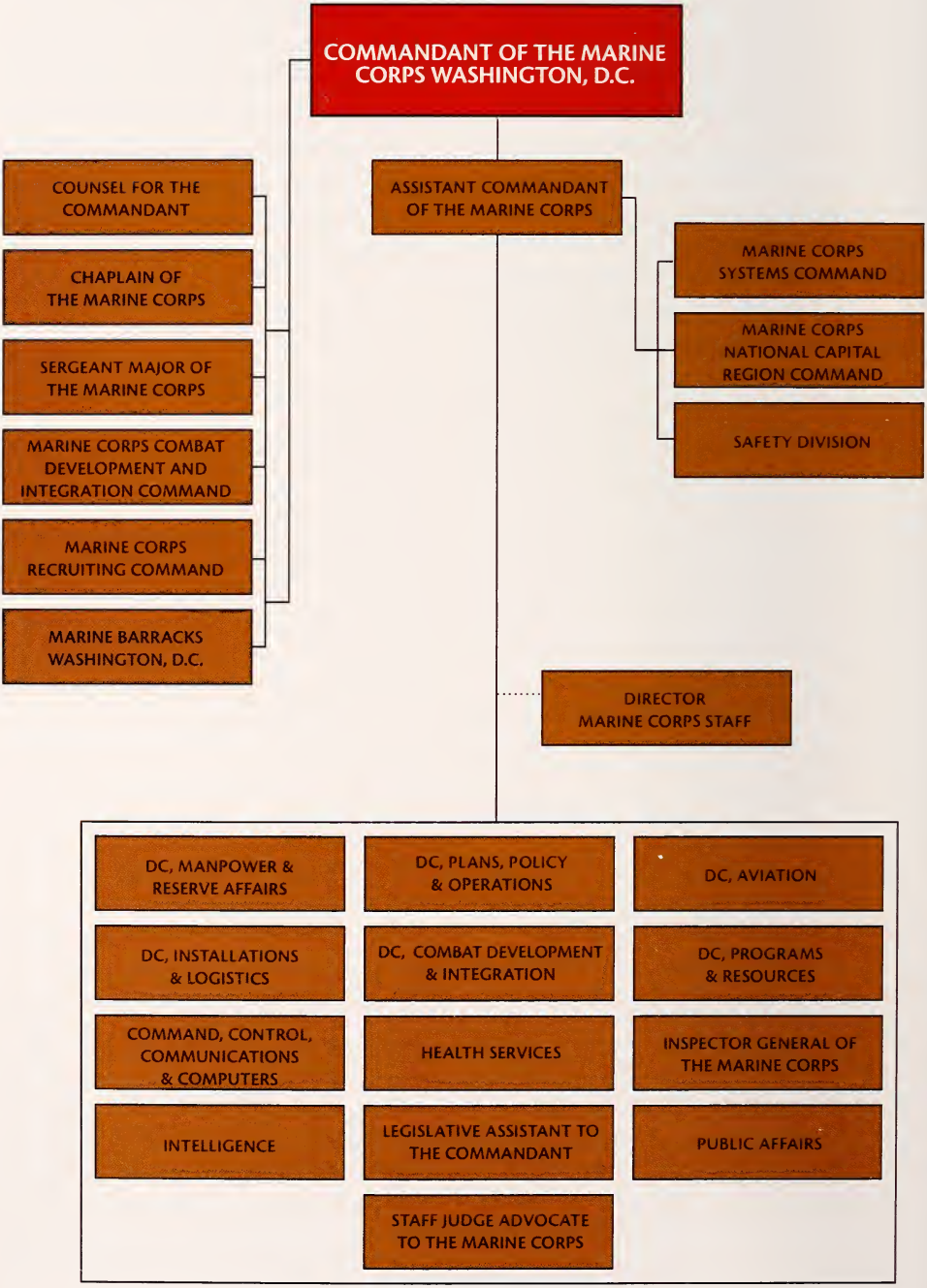
Operating forces—the heart of the Marine Corps—comprise the forward-presence, crisis-response, and fighting power that the Corps makes available to U.S. unified combatant commanders. The Marine Corps has permanently established two combatant command-level service components in support of Unified Commands with significant Marine forces assigned: U.S. Marine Corps Forces Command (MARFORCOM) and Marine Corps Forces, Pacific (MARFORPAC). The Commander, U.S. Marine Forces Command (COMMARFORCOM) is assigned to the Commander, U.S. Joint Forces Command (USJFCOM). He provides the 2nd Marine Expeditionary Force (II MEF) to USJFCOM. Likewise, the Commander, U.S. Marine Forces, Pacific (COMMARFORPAC) is assigned to the Commander, U.S. Pacific Command (USPACOM). COMMARFORPAC provides I and III MEFs to USPACOM. These assignments reflect the peacetime disposition of Marine Corps forces. Marine forces are apportioned to the remaining geographic combatant commands—the U.S. Southern Command (USSOUTHCOM), U.S. Northern Command (USNORTHCOM), U.S. European Command (USEUCOM), U.S. Central Command (USCENTCOM), and U.S. Forces Korea (USFK)—for contingency planning, and are provided to these commands when directed by the Secretary of Defense.

RESERVES

The United States Marine Corps Reserve is responsible for providing trained units and qualified individuals to be mobilized for active duty in time of war, national emergency or contingency operations, and provide personnel and operational tempo relief for active component forces in peacetime. Marine Corps force expansion is made possible by activation of the Marine Corps Reserve, which like the active forces, consists of a com-

bined-arms force with balanced ground, aviation, and logistics combat support units. Organized under the Commander, Marine Forces Reserve (COMMARFORRES), units of this command are located at 185 training centers in 47 states, Puerto Rico, and the District of Columbia. Over the past several years, the Reserve component has been closely integrated with the active component under the Marine Corps' Total Force concept. The Reserves provide individuals and specific units to augment and reinforce active capabilities. The ethos for Marine Forces Reserve is mobilization and combat readiness. This ensures the men and women of Marine Forces Reserve stand ready, willing, and able to answer the nation's call at home and abroad at a moment's notice.

Headquarters, U.S. Marine Corps

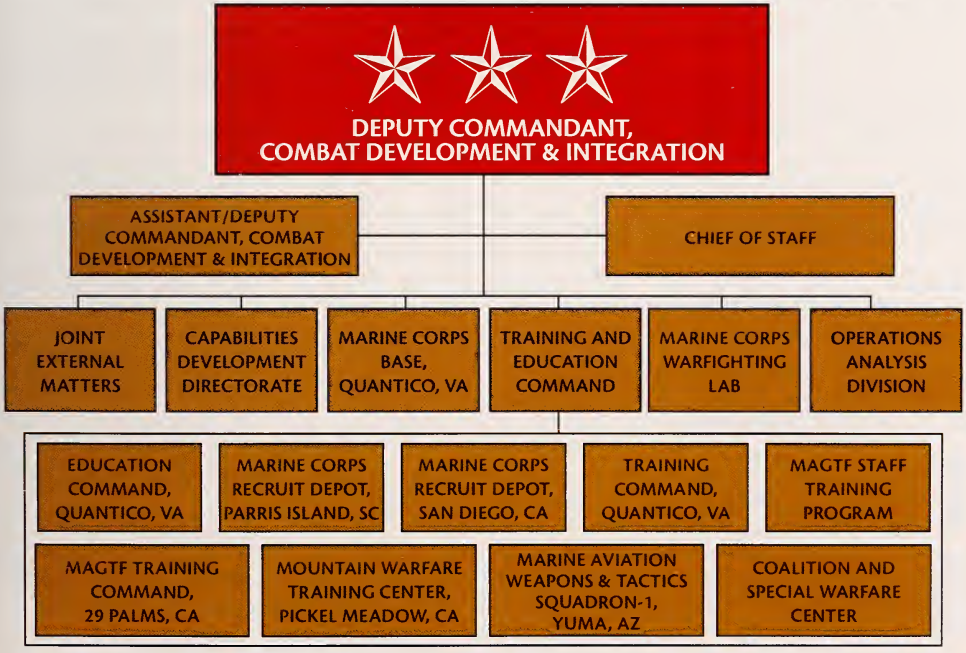


U.S. Marine Corps National Capital Region Structure

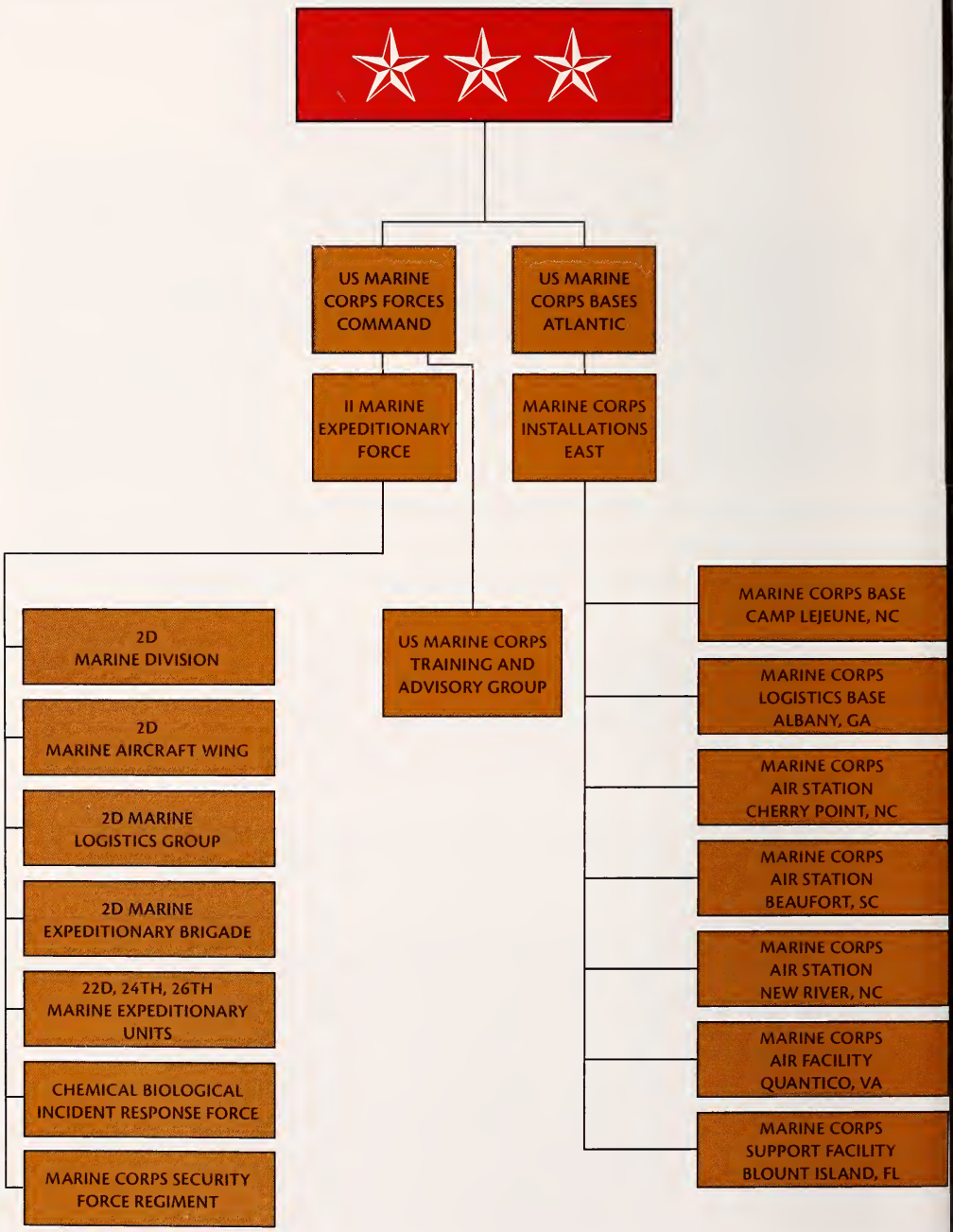


* CG, MCCDC "DUAL HATTED AS CG, MCNCRC.
** CO, MCB, QUANTICO "DUAL HATTED" AS DEPUTY COMMANDER, MCNCRC
*** ANTITERRORISM/FORCE PROTECTION - (AT/FP) STAFF FORMS THE STAFF NUCLEUS FOR THE MARINE CORPS SERVICE COMPONENT COMMAND ELEMENT OF THE JOINT FORCES HEADQUARTERS-NATIONAL CAPITAL REGION

Deputy Commandant, Combat Development & Integration/ CG Marine Corps Combat Development Command/ Commander Marine Forces Strategic Command/ CG Marine Corps Installations National Capital Region



U.S. Marine Corps Forces Command, Marine Corps Bases Atlantic



U.S. Marine Corps Forces Command Ground Units

Marine Corps Base Camp Lejeune, NC

II Marine Expeditionary Force

II Marine Expeditionary Force
- Headquarters Group

2d Marine Expeditionary Brigade

22d Marine Expeditionary Unit
- Command Element

24th Marine Expeditionary Unit
- Command Element

26th Marine Expeditionary Unit
- Command Element

2d Marine Logistics Group

Marine Logistics Group Headquarters

Combat Logistics Regiment 27
- Combat Logistics Battalion 22
- Combat Logistics Battalion 24
- Combat Logistics Battalion 26

Combat Logistics Regiment 2
- Combat Logistics Battalion 2
- Combat Logistics Battalion 6
- Combat Logistics Battalion 8

Combat Logistics Regiment 25
- 2d Maintenance Battalion
- 2d Supply Battalion
- 2d Medical Battalion
- Combat Logistics Company 21
- Combat Logistics Company 23

8th Engineer Support Battalion

2d Dental Battalion

2d Marine Division

Headquarters Battalion

2d Marine Regiment
- 1st Battalion (1/2)
- 2d Battalion (2/2)
- 3d Battalion (3/2)
- 2d Battalion, 9th Marines (2/9)

6th Marine Regiment
- 1st Battalion (1/6)
- 2d Battalion (2/6)
- 3d Battalion (3/6)
- 3d Battalion, 9th Marines (3/9)

8th Marine Regiment
- 1st Battalion (1/8)
- 2d Battalion (2/8)
- 3d Battalion (3/8)
- 1st Battalion, 9th Marines (1/9)

10th Marine Regiment
- 1st Battalion (1/10)
- 2d Battalion (2/10)
- 3d Battalion (3/10)
- 5th Battalion (5/10)

2d Tank Battalion

2d Assault Amphibian Battalion

2d Light Armored Reconnaissance Battalion

2d Combat Engineer Battalion

2d Reconnaissance Battalion

U.S. Marine Corps Forces Command Aviation Units

2d Marine Aircraft Wing

Marine Corps Air Station Cherry Point, NC

Headquarters, 2d Marine Aircraft Wing
- Marine Wing Headquarters Squadron 2

Marine Aircraft Group 14
- Marine Aviation Logistics Squadron 14
- Marine Tactical Electronic Warfare Squadron 1
- Marine Tactical Electronic Warfare Squadron 2
- Marine Tactical Electronic Warfare Squadron 3
- Marine Tactical Electronic Warfare Squadron 4
- Marine Attack Training Squadron 203
- Marine Attack Squadron 231
- Marine Attack Squadron 223
- Marine Attack Squadron 542
- Marine Aerial Refueler Transport Squadron 252
- Marine Aerial Refueler Training Squadron 253*

Marine Air Control Group 28
- Marine Tactical Air Control Squadron 28
- Marine Wing Communications Squadron 28
- Marine Air Control Squadron 2
- Marine Aircraft Support Squadron 1
- Marine Unmanned Aerial Vehicle Squadron 2
- 2d Low Altitude Air Defense Battalion

Marine Wing Support Group 27
- Marine Wing Support Squadron 274

Air Traffic Control Detachment

Bogue Airfield, NC

- Marine Wing Support Squadron 271
- Air Traffic Control detachment

Marine Corps Air Station New River, NC

Marine Aircraft Group 26
- Marine Aviation Logistics Squadron 26
- Marine Medium Helicopter Squadron 261
- Marine Medium Helicopter Squadron 264
- Marine Medium Tiltrotor Squadron 266
- Marine Heavy Helicopter Squadron 461
- Marine Light Attack Helicopter Squadron 167
- Marine Medium Tiltrotor Training Squadron 204

Marine Aircraft Group 29
- Marine Aviation Logistics Squadron 29
- Marine Medium Tiltrotor Squadron 162
- Marine Medium Tiltrotor Squadron 263
- Marine Medium Tiltrotor Squadron 365
- Marine Heavy Helicopter Squadron 464
- Marine Light Attack Helicopter Squadron 269
- Marine Helicopter Training Squadron 302

Marine Wing Support Squadron 272

Air Traffic Control Detachment

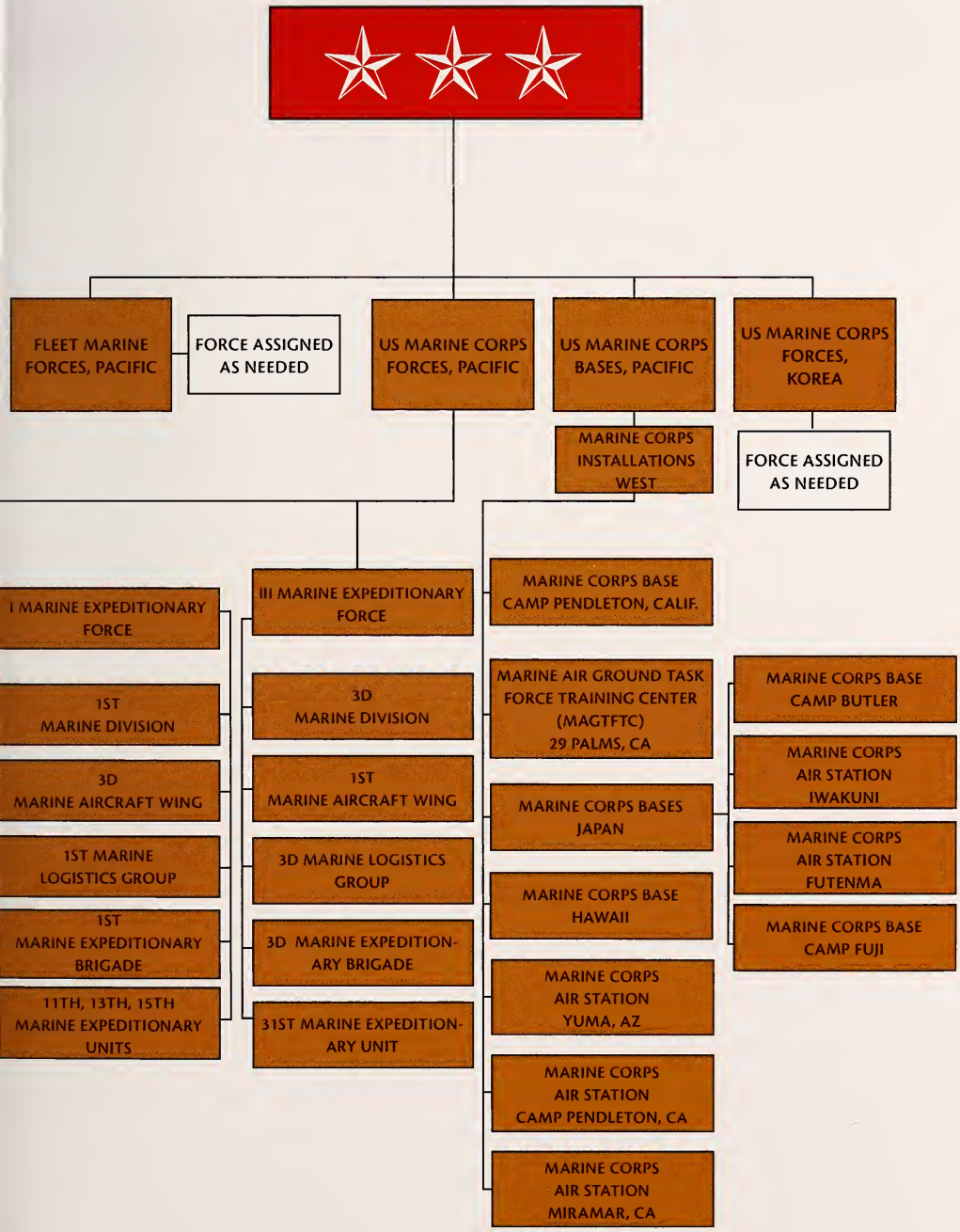
Marine Corps Air Station Beaufort, SC

Marine Aircraft Group 31
- Marine Aviation Logistics Squadron 31
- Marine Fighter Attack Squadron 115
- Marine Fighter Attack Squadron 122
- Marine Fighter Attack Squadron 251
- Marine Fighter Attack Squadron 312
- Marine All Weather Fighter Attack Squadron 224
- Marine All Weather Fighter Attack Squadron 332
- Marine All Weather Fighter Attack Squadron 533

Marine Wing Support Squadron 273

Air Traffic Control Detachment

U.S. Marine Corps Forces Pacific, Korea



U.S. Marine Corps Forces Pacific & Korea, Ground Units

Marine Corps Base Camp Pendleton, CA

I Marine Expeditionary Force

- 11th Marine Expeditionary Unit
- 13th Marine Expeditionary Unit
- 15th Marine Expeditionary Unit
- 1st Force Reconnaissance Company
- 1st Marine Expeditionary Brigade
- 9th Communications Battalion

1st Marine Logistics Group

- Marine Logistics Group Headquarters

- Combat Logistics Regiment 17
  - Combat Logistics Battalion 11
  - Combat Logistics Battalion 13
  - Combat Logistics Battalion 15

- Combat Logistics Regiment 1
  - Combat Logistics Battalion 1
  - Combat Logistics Battalion 5
  - Combat Logistics Battalion 7

- Combat Logistics Regiment 15
  - 1st Maintenance Battalion
  - 1st Supply Battalion
  - 1st Medical Battalion
  - Combat Logistics Company 11
  - Combat Logistics Company 16

- 7th Engineer Support Battalion
- 1st Dental Battalion

1st Marine Division

- 1st Marine Regiment
  - 1st Battalion (1/1)
  - 2d Battalion (2/1)
  - 3d Battalion (3/1)
  - 1st Battalion, 4th Marine Regiment (1/4)

- 5th Marine Regiment
  - 1st Battalion (1/5)
  - 2d Battalion (2/5)
  - 3d Battalion (3/5)
  - 2d Battalion, 4th Marine Regiment (2/4)

- 11th Marine Regiment
  - 1st Battalion (1/11)
  - 2d Battalion (2/11)
  - 5th Battalion (5/11)

- 3d Assault Amphibian Battalion
- 1st Light Armored Reconnaissance Battalion
- 1st Combat Engineer Battalion
- 1st Reconnaissance Battalion

U.S. Marine Corps Forces Pacific & Korea, Ground Units

Twentynine Palms, CA

I MEF assets located at the Marine Corps Air-Ground Combat Center

- 7th Marine Regiment
  - 1st Battalion (1/7)
  - 2d Battalion (2/7)
  - 3d Battalion (3/7)
  - 3d Battalion, 4th Marine Regiment (3/4)
- 11th Marine Regiment
  - 3d Battalion (3/11)
- 1st Tank Battalion
- 3d Assault Amphibian Battalion
  - D Company
- Combat Logistics Battalion 7
- 3d Light Armored Reconnaissance Battalion

Marine Corps Base Kaneohe Bay, HI

III MEF assets located at

- Marine Corps Base Kaneohe Bay
- 3d Marine Regiment
  - 1st Battalion (1/3)
  - 2d Battalion (2/3)
  - 3d Battalion (3/3)
- 1st Battalion, 12th Marine Regiment (1/12)
- Combat Service Support Group 3
- Combat Logistics Battalion 3

U.S. Marine Corps Forces Pacific & Korea, Ground Units

Okinawa, Japan

III Marine Expeditionary Force

III Marine Expeditionary Force
- Headquarters Group
- 7th Communication Battalion
- 3d Intelligence Battalion
- Special Operations Training Group
- Headquarters & Service Company

3d Marine Expeditionary Brigade
- 31st Marine Expeditionary Unit

3d Marine Logistics Group

Marine Logistics Group Headquarters

Combat Logistics Regiment 37
- Combat Logistics Battalion 31

Combat Logistics Regiment 3
- Combat Logistics Battalion 3 (Hawaii)
- Combat Logistics Battalion 4

Combat Logistics Regiment 35
- 3rd Maintenance Battalion
- 3rd Supply Battalion
- 3rd Medical Battalion
- Combat Logistics Company 36

9th Engineer Support Battalion
- 3rd Dental Battalion

3d Marine Division

4th Marine Regiment
- 4 Unit Deployment Program Battalions

12th Marine Regiment
- Combat Assault Battalion
- 3d Force Reconnaissance Battalion
- Echo Battery, 2d Battalion, 12th Marines (2/12)
- 3d Battalion, 12th Marines (3/12)

U.S. Marine Corps Forces Pacific & Korea, Aviation Units

1st Marine Aircraft Wing

Marine Corps Air Station Futenma, Okinawa, Japan

Marine Aircraft Group 36
- Marine Aviation Logistics Squadron 36
- Marine Medium Helicopter Squadron 262
- Marine Medium Helicopter Squadron 265
- Marine Heavy Helicopter Squadron – Pacific (Unit Deployment Program)
- Marine Light Attack Helicopter Squadron – Pacific (Unit Deployment Program)
- Marine Aerial Refueler Transport Squadron 152

Marine Air Control Group 18
- Marine Tactical Air Command Squadron 18
- Marine Wing Communications Squadron 18
- Marine Air Control Squadron 4
- Marine Air Support Squadron 2

Marine Wing Support Squadron 172

Marine Corps Base Camp Butler, Okinawa, Japan

1st Marine Aircraft Wing
- Marine Wing Headquarters Squadron 1
- Marine Wing Support Group 17

Marine Corps Air Station Iwakuni, Japan

Marine Wing Support Squadron 171

Marine Aircraft Group 12
- Marine Aviation Logistics Squadron 12
- Marine Fighter Attack Squadron – Atlantic (Unit Deployment Program)
- Marine Fighter Attack Squadron 212
- Marine Fighter Attack Squadron – Pacific (Unit Deployment Program)
- Marine Tactical Electronic Warfare Squadron – Atlantic (Unit Deployment Program)

Marine Corps Base Kaneohe Bay, HI

Marine Aircraft Group 24
- Marine Heavy Helicopter Squadron 362
- Marine Heavy Helicopter Squadron 363
- Marine Heavy Helicopter Squadron 463
- Marine Aviation Logistics Squadron 24

U.S. Marine Corps Forces Pacific & Korea, Aviation Units

3d Marine Aircraft Wing

Marine Corps Air Station Miramar, CA

Headquarters, 3d Marine Aircraft Wing
- Marine Wing Headquarters Squadron 3

Marine Aircraft Group 11
- Marine Aviation Logistics Squadron 11
- Marine Fighter Attack Squadron 232
- Marine Fighter Attack Squadron 314
- Marine Fighter Attack Squadron 323
- Marine Fighter Attack Squadron All Weather 121
- Marine Fighter Attack Squadron All Weather 225
- Marine Fighter Attack Squadron All Weather 242
- Marine Fighter Attack Training Squadron 101
- Marine Aerial Refueler Transport Squadron 352

Marine Aircraft Group 16
- Marine Aviation Logistics Squadron 16
- Marine Medium Helicopter Squadron 161
- Marine Medium Helicopter Squadron 163
- Marine Medium Helicopter Squadron 165
- Marine Medium Helicopter Squadron 166
- Marine Heavy Helicopter Squadron 361
- Marine Heavy Helicopter Squadron 462
- Marine Heavy Helicopter Squadron 465
- Marine Heavy Helicopter Squadron 466

Marine Wing Support Group 37
- Marine Wing Support Squadron 373

Marine Air Control Group 38
- Marine Wing Communications Squadron 38
- Marine Tactical Air Control Squadron 38

Marine Corps Air Station Yuma, AZ

Marine Aircraft Group 13
- Marine Aviation Logistics Squadron 13
- Marine Attack Squadron 211
- Marine Attack Squadron 214
- Marine Attack Squadron 311
- Marine Attack Squadron 513

Marine Wing Support Squadron 371
Marine Air Control Squadron 1
Marine Aviation Weapons and Tactics Squadron 1
Marine Fighter Attack Training Squadron 401

Marine Corps Air Station Camp Pendleton, CA

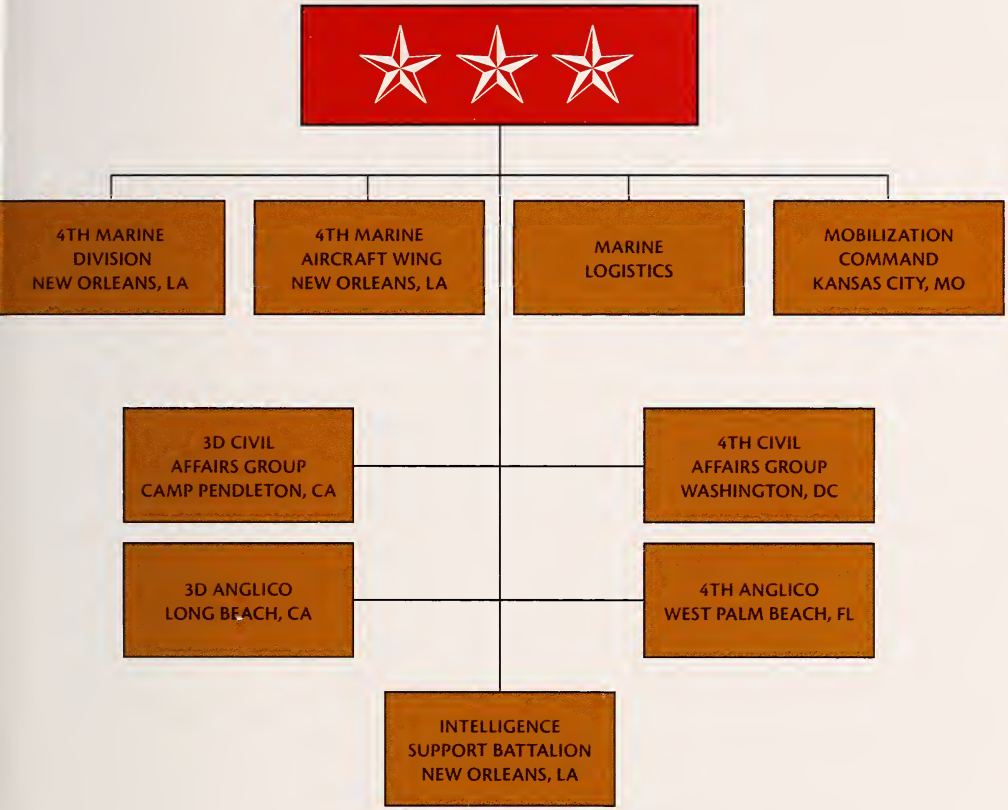
Marine Aircraft Group 39
- Marine Aviation Logistics Squadron 39
- Marine Light Attack Helicopter Squadron 169
- Marine Light Attack Helicopter Squadron 267
- Marine Light Attack Helicopter Squadron 367
- Marine Light Attack Helicopter Squadron 369
- Marine Helicopter Training Squadron 164
- Marine Medium Helicopter Squadron 268
- Marine Medium Helicopter Squadron 364
- Marine Helicopter Training Squadron 303

Marine Wing Support Squadron 372
Marine Air Support Squadron 3
3d Low Altitude Air Defense Battalion

Twentynine Palms, CA

(I MEF Assets located at the Marine Corps Air-Ground Combat Center)
Marine Unmanned Aerial Vehicle Squadron 3
Unmanned Aerial Vehicle Squadron 1
Marine Wing Support Squadron 374

U.S. Marine Forces Reserve



U.S. Marine Corps Forces Reserve Ground Units

4th Marine Division

New Orleans, LA
- Headquarters, Headquarters Battalion

Tampa, FL
- Headquarters, 4th Assault Amphibian Battalion

Fort Worth, TX
- Headquarters, 14th Marines

San Bruno, CA
- Headquarters, 23d Marines

Kansas City, MO
- Headquarters, 24th Marines

Worcester, MA
- Headquarters, 25th Marines

San Diego, CA
- Headquarters, 4th Tank Battalion

Bessemer, AL
- Headquarters, Anti- Terrorism Battalion

Mobile, AL
- Headquarters, 3d Force Reconnaissance Company

San Antonio, TX
- Headquarters, 4th Reconnaissance Battalion

Kaneohe Bay, HI
- Headquarters, 4th Force Reconnaissance Company

Camp Pendleton, CA
- Headquarters, 4th Light Armored Reconnaissance Battalion

Baltimore, MD
- Headquarters, 4th Combat Engineer Battalion

Broken Arrow, OK
- TOW Training Company

4th Marine Logistics Group

New Orleans, LA
- Headquarters, 4th FSSG

Marietta, GA
- Headquarters, Headquarters and Service Battalion

Portland, OR
- Headquarters, 6th Engineer Support Battalion

Red Bank, NJ
- Headquarters, 6th Motor Transport Battalion

Newport News, VA
- Headquarters, 4th Supply Battalion

Charlotte, NC
- Headquarters, 4th Maintenance Battalion

Ft. Lewis, WA
- Headquarters, 4th Landing Support Battalion

Brooklyn, NY
- Headquarters, 6th Communications Battalion

San Diego, CA
- Headquarters, 4th Medical Battalion

Marietta, GA
- Headquarters, 4th Dental Battalion

Camp Pendleton, CA
- 4th MLG Forward-West

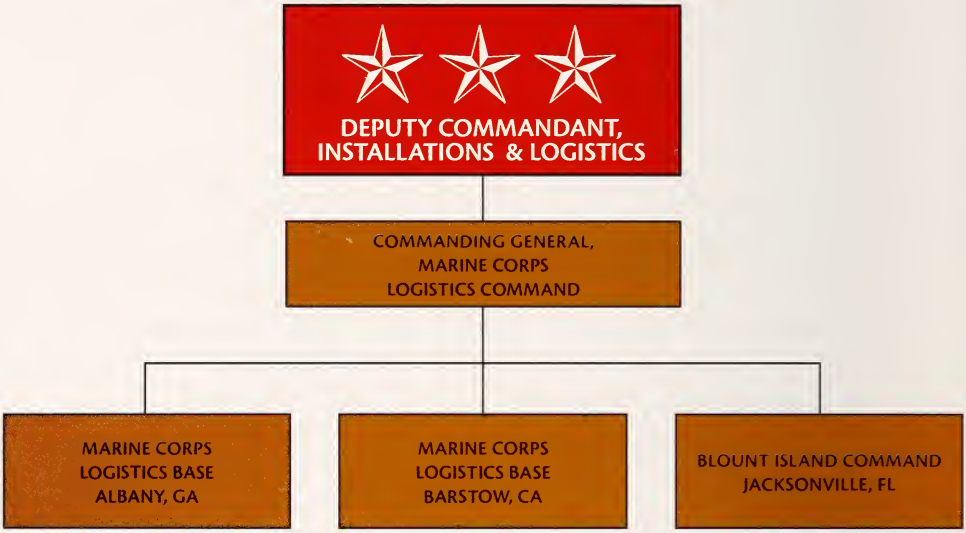
Camp Lejeune, NC
- 4th MLG Forward-East

U.S. Marine Corps Forces Reserve Aviation Units

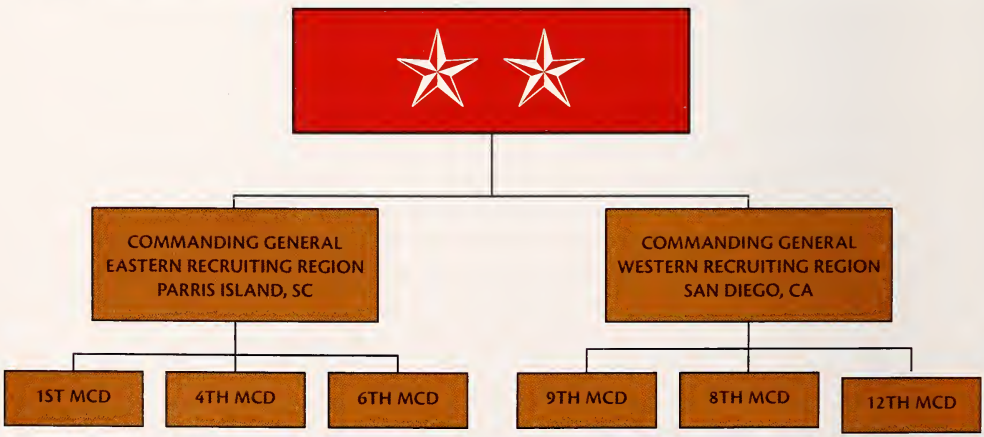
4th Marine Aircraft Wing

Marine Aircraft Group 41	Ft. Worth, TX
Marine Fighter Arrack Squadron 112	Ft. Worth, TX
Marine Aerial Refueler Transport Squadron 234	Ft. Worth, TX
Marine Aviation Logistics Squadron 41	Ft. Worth, TX
Marine Aircraft Group 42 Headquarters	NAS Atlanta, GA
Marine Fighter Attack Squadron 142	NAS Atlanta, GA
Marine Medium Helicopter Squadron 774	NAS Norfolk, VA
Marine Light Attack Helicopter Squadron 773 (-)	NAS Atlanta, GA
Detachment, A	NAS/JRB Belle Chasse, LA
Detachment, B	NAS Norfolk, VA
Detachment, C	NAS/JRB New Orleans, LA
Marine Aviation Logistics Squadron 42	NAS Atlanta, GA
Marine Aviation Logistics Squadron Detatchment A	MCAS Miramar, CA
Marine Aviation Logistics Squadron Detatchment B	NAS Norfolk, VA
Marine Aviation Logistics Squadron Detatchment C	NAS/JRB New Orleans, LA
Marine Aircraft Group 46 Headquarters	MCAS Miramar, CA
Marine Fighter Attack Squadron 134	MCAS Miramar, CA
Marine Heavy Helicopter Squadron 769	Edwards AFB, CA
Marine Medium Helicopter Squadron 764	Edwards AFB, CA
Marine Light Attack Helicopter Squadron 775 (-)	MCB Camp Pendleton, CA
Detachment, A	MCAS Camp Pendleton, CA
Detachment, B	Edwards AFB, CA
Marine Fighter Training Squadron 401	MCAS Yuma, AZ
Marine Wing Support Group 47 Headquarters	Mt. Clemens, MI
Marine Wing Support Squadron 471	Minneapolis, MN
Marine Wing Support Squadron 472	NAS Willow Grove, PA
Marine Wing Support Squadron 473	MCAS Miramar, CA
Marine Air Control Group 48 Headquarters	Great Lakes, IL
Marine Wing Communication Squadron 48	Great Lakes, IL (Detachment A)
Marine Tactical Air Command Squadron 48	Great Lakes, IL
Marine Air Support Squadron 6 (-)	Westover AFB, MA
Marine Air Control Squadron 23 (-)	Aurora, CO
Marine Air Control Squadron 24	Dam Neck, VA
4th Low Altitude Air Defense Battalion	Pasadena, CA
Marine Aircraft Group 49 Headquarters	NAS/JRB Willow Grove, PA
Marine Fighter Attack Squadron 321	Andrews AFB
Marine Aerial Refueler Transport Squadron 452	Stewart ANGB, NY
Marine Heavy Helicopter Squadron 772	NAS/JRB Willow Grove, PA
Marine Aviation Logistics Squadron 49	Stewart ANGB, NY
Detachment, HMLA-775	Johnstown, PA (ADCON to MAG-49)

U.S. Marine Corps Installations & Logistics



U.S. Marine Corps Recruiting Command



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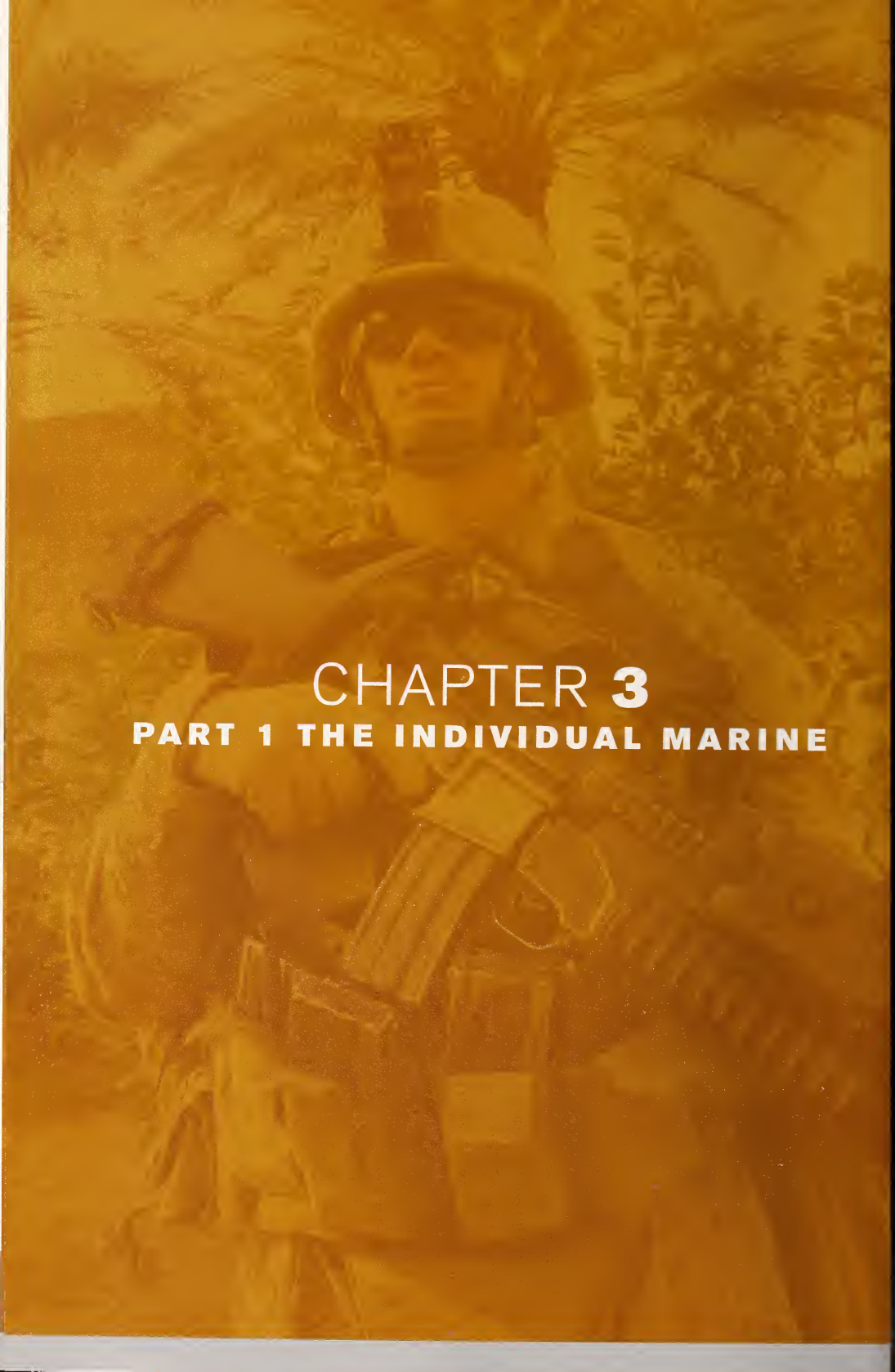
CHAPTER 3

PROGRAMS

INTRODUCTION

America's Marines are fully engaged in what we believe is a generational struggle against fanatical extremists, and the challenges we face are of global scale and scope. Marines are a tough breed and will do all it takes to win. Congress has mandated that they "be the most ready when the Nation is least ready," and we are committed to ensuring that the technologies, systems and weapons are in their hands to do what is needed, across the entire spectrum of the United States' engagement world wide.

Focusing on our number-one priority, the Individual Marine, we are committed to providing the best equipment, education and training, always mindful of the need to be good stewards of the Nation's scarce resources. Chapter 3 of ***Concepts & Programs 2008*** outlines the programs and initiatives that we are pursuing to ensure that America's Marine Corps remains the world's foremost expeditionary fighting force and that the Individual Marine has the "right stuff" to carry out all missions and tasks.



CHAPTER 3
PART 1 THE INDIVIDUAL MARINE

INTRODUCTION

The Marine Corps and the Nation are blessed with young patriots who every day live up to the proud traditions and great legacy of the Marine Corps. Their successes in battle—from the mountains of Afghanistan to the desert heat of western Iraq—and their responses to other crises and contingencies worldwide have written new chapters in the long history of our Corps. These adaptable and determined young men and women are professionals in every sense of the word, whether they are in battle overseas or conducting disaster-relief operations at home.

We must ensure our Individual Marines are equipped with the latest and most effective weapons and equipment our Nation's industrial base has to offer. Indeed, it is our duty to provide the tools needed to carry out the full spectrum of missions and tasks around the world. But, we will equip the man, not man the equipment, as we know that at the core of all operations is a human being, the Individual Marine, who carries out specific tasks to meet critical mission objectives.

To that end, Figure 3-1 depicts some of the more common and recognizable items of combat clothing and equipment that we've recently fielded or are preparing to field. Recognizing the importance of the M249 Squad Automatic Rifle (SAW), we've added more durable bipods (1) and a more versatile buttstock (2). The improved bipods are made of steel and the improved buttstock enables employment of the weapon in multiple environments by shooters of varying size, without degrading current capabilities. Along those same lines, we've developed a new vehicle mount (3) that allows the gunner to rapidly and accurately engage targets. The new mount supports both M249 SAW as well the M240B and works with multiple types of vehicles.

For the Marine's standard weapon system, the M16A4, we've improved a number of it's optional features to include the following. A Grip Pod (4) that provides the infantry Marine a vertical hand-grip that has folding, extendable, and removable bipods. The Grip Pod is shown with both the bipods open and closed. The Rifle Combat Optic (5) is a fixed 4X optical aiming sight. It provides the Marine with a targeting tool to engage distant daylight and near low-lit targets with increased identification certainty. Additionally, the new, Improved Multi-Purpose Bayonet (6) will provide greater durability than the M-7 bayonet and has a scabbard so as to function as a fighting knife as well as a bayonet. It's high carbon steel blade will have a serrated edge and handle will be made from hard rubber to offer better control in various weather conditions.

The M224X 60 mili-meter (60mm) lightweight Company Mortar System (7) will replace the currently fielded M224 60mm mortar system. The M224X provides the same capability as the M224, however it is lighter, easier to manufacture and maintain, and will reduce overall life-cycle costs by 40-50%. Looking to ease the rigors of combat, the Improved Load Bearing System (8) will result in less fatigue, fewer equipment failures, and more combat effectiveness. Additionally, communication will be improved through use



Figure 3-1

of the Integrated Intra Squad Radio (IISR) (9) which is lighter than legacy radios and cheaper to use. Shown along side the IISR is the QuietPro Enhanced Hearing Protection system (10) which is an in-ear communication headset that not only has active and passive hearing protection but also provides enhanced hearing capability.

For the Scout-Sniper we've introduced the Gunslinger Backpack (11). This is a 2,900 cubic inch robust assault backpack with an integrated weapons carriage pocket designed to conceal/protect a sniper's rifle during insertion and extraction. Employed primarily by Marines in Military Police units, the M1014 Joint Service Combat Shotgun (12) provides an ambidextrous, semi-automatic 12 gauge weapon for use in offensive and defensive operations. It is capable of accepting either 2 3/4 " or 3" shells and also has a telescoping tubular buttstock that allows the user to configure the shotgun for desired length.

All Marines will benefit from the Lightweight Helmet (LWH) (13). The LWH has improved ballistic protection capability over its forerunner, is a half pound lighter and also has features that improve the fit. It's also provided with a pad suspension system for added protection from blunt force trauma, and a four-point retention system that provides the Marine with greater stability while reducing fatigue. Flame Resistant Organization Gear (FROG) provides limited protection from exposure to flame/fire/ resulting from blasts associated with improvised explosive devices. Some of the items in the FROG clothing system are gloves (14), undergarments (15) and a combat shirt and trouser ensemble (16). The fabrics used in all items are self extinguishing and do not melt or drip. Finally, we are providing Marines with the Eye Safety System (17) kit which comes with two single piece ballistic lenses, one clear and one smoke gray. The lenses are

made with anti-scratch and anti-fog coatings and foam seal between the face and the goggle frame allows ventilation while keeping dust out.

We must ensure our Individual Marines are equipped with the latest and most effective weapons and equipment our Nation's industrial base has to offer. Indeed, it is our duty to provide the tools needed to carry out the full spectrum of missions and tasks around the world. But, we will equip the man, not man the equipment, as we know that at the core of all operations is a human being, the Individual Marine, who carries out specific tasks to meet critical mission objectives. In the Chapter 3 pages that follow we discuss programs that are designed to make the Individual Marine a more effective and efficient weapon. Concurrently, they highlight our commitment to ensuring the safety and survivability of this most important and valuable asset. We also know that our Marine families are vital to our ability to meet the Nation's expectations. They offer marvelous support, abiding resolve and steadfast patience. Programs that we have or will put in place are focused on "taking care of our own."

MARINE EXPEDITIONARY RIFLE SQUAD (MERS)

The Marine Expeditionary Rifle Squad (MERS) is a program designed to apply a system's engineering approach to equipping a Marine rifle squad, our most fundamental warfighting unit. The focus of the program is to view the Marine rifle squad in a holistic manner—one in which Individual Marines comprise a whole much more effective than the sum of its separate elements. The integration and configuration management of all components that are worn, carried and consumed by the squad will increase lethality, flexibility, and survivability of infantry forces. The program has founded the Squad Integration Facility *GRUNTWORKS*. The facility provides a venue to test the capabilities and limitations of all equipment in development and under consideration for procurement that will be delivered to the infantry squad. For the first time human factors analysis will be applied to the physical integration of the infantry squad's equipment. The physiological, ergonomic, and performance impacts of fielding a new piece of equipment create a constant set of trade-offs between weight management, lethality, survivability, mobility, and sustainment. MERS will highlight these trade offs and refine solutions that incorporate the capabilities of the Marine rifle squad as an integrated system.

MERS has also been designated as the Marine Corps Systems Command's Distributed Operations Coordinator. In this role MERS has managed the fielding of designated Distributed Operations items to battalions identified in the Infantry Battalion Enhancement Period (IBEP).

MERS integrates the previously piecemealed acquisitions of equipment for the Marine rifle squad. The August 2007 Marine Corps Science and Technology Strategic Plan emphasized the lightening of the load for the individual Marine and Sailor. MERS provides a conduit through which to conduct the integration of planned and ongoing programs. One benefit of this program is the evaluation of weight impacts on the performance of an infantry squad. These studies will extend to the ergonomics benefits of certain design requirements. The program will also be able to coordinate systems to eliminate redundant weight and volume. MERS bridges the "stovepipes" created by acquiring material solutions to identified shortfalls without looking at the infantry squad as a system. MERS is working with multiple programs at the Technology Development Phase and the System Integration Phase of acquisition.

The fielding of Distributed Operations equipment to battalions participating in IBEP provides those battalions with a significantly increased command and control (C2) capability. The robust C2 package combined with appropriate training will empower the non-commissioned officers (NCO) at the fire team and squad level. The communication equipment will increase the battalion's capabilities across all six warfighting functions. Additionally, the potential for exponential gains in intelligence report-

ing has been created through the fielding of enhanced digital imagery capabilities. The equipping of the IBEP battalions enables greater dominance on the battlefield through information superiority.

The *GRUNTWORKS* squad integration facility opened on 1 November 2007. MERS plans to complete a weight analysis during fiscal year 2008. Additionally, MERS will begin testing on an integrated head-borne system, load carriage design, and establish the capability to evaluate an equipped squad in the various Marine Corps mobility platforms.

The fielding of Distributed Operations Equipment under the IBEP policy has been initiated with 1st Battalion, 5th Marines now deployed, 1st Battalion, 9th Marines, 3rd Battalion, 4th Marines, and 2nd Battalion, 7th Marines. Fielding will continue with other battalions designated by the Marine Expeditionary Force commands. This program has moved immediately to the Production and Deployment Phase. Fielding is complete to the Schools of Infantry (SOI), West and East. The SOIs were given a high priority to establish a capabilities baseline for the NCO leadership rotating back to the Operating Forces. Additionally, equipment and training is currently being provided to the Infantry Officer Course (IOC). Fielding of equipment will continue through fiscal year 2008 as directed by the Deputy Commandant for Plan, Policies, & Operations of Headquarters, Marine Corps, and the Commanding General of Marine Corps Combat Development Command.

MARINE ENHANCEMENT PROGRAM (MEP)

The Marine Enhancement Program (MEP) was created in response to guidance provided by Congress in 1989 for the Marine Corps to establish programs dedicated to improving the "lethality, comfort and survivability" of the individual Marine. The primary intent of the program is to focus attention on low-cost, low visibility materiel solutions that can be rapidly fielded and that typically do not compete well against larger, high profile items in the budget. The MEP is dedicated to ensuring improvements for the individual Infantryman are identified and quickly transitioned into practical solutions. This goal is achieved through an accelerated acquisition process that utilizes commercially available technologies to quickly provide lighter, more improved "infantry items" to the Marines.

Items procured and fielded under the MEP seek to reduce the load, increase the survivability, enhance the safety and improve the lethality of the individual Marine Infantryman across the spectrum of operational environments. The systems developed, procured and fielded by the MEP are primarily intended for the Marine Infantryman within the Ground Combat Element (GCE). When applicable, MEP items have been transitioned to support other Military Occupational Specialties within the GCE (e.g. Combat Engineers, Artilleryman, etc.) and across the Marine Air Ground Task Force (e.g. Supply, Maintenance, Administration, Ordnance, etc.). The following are a few items that MEP has funded in recent years: Combat Shotgun, Field Tarp, Flame Resistant Organizational Gear, Modular Tactical Vest, Military Eye Protection, Multi-Purpose Bayonet, Rifle Combat Optic and Sniper Weapon Concealment System.

The MEP Working Group, which consists of core representatives from Plans, Policies and Operations, Marine Corps Combat Development Command and Marine Corps Systems Command, meets quarterly to review proposals submitted by Marines. In fiscal year 2008, MEP is funding the following prioritized initiatives: Battery Alternatives and Charging Adapters, Individual Water Purification Block II, Fire Suppression System, Solar DACP, Sling Keeper for the M203, Grip Pod for the M203 and M249 SAW, Safety Blank Fire Adapter, Muzzle Covers, Personal Cooling Vest, 3 Season Sleeping Bag and Personal Illumination System.

MARINE CORPS MARTIAL ARTS PROGRAM (MCMAP)

Since its inception in 1775, the Marine Corps continues to distinguish itself as a martial culture second to none. The legacy of the Corps is built upon the close combat of ships of sail, the storming of the bois de Belleau, the holding of "Bloody Ridge" on Guadalcanal, and in recent times, the Iraq and Afghanistan Campaigns. In order to better prepare Marines for the conflicts to come, the 32nd Commandant of the Marine Corps, General James L. Jones, envisioned a program that would provide Marines the tools with which to conduct Military Operations in Urban Terrain and to realize the potential of every Marine as a warrior. That vision has been reenergized by the 34th Commandant of the Marine Corps, General James Conway, with the release of his guidance in ALMAR 034/07. The Marine Corps Martial Arts Program (MCMAP), managed by the Martial Arts Center of Excellence (MACE), continues to be the successful product of that vision.

The Martial Arts Program is based on five, colored-belt levels with six different degrees of black belt. Each belt level is broken down into three disciplines, each of which a Marine must become proficient in before attaining the next belt level. The mental, character, and physical disciplines of the warrior are the foundation of the Martial Arts Program. The mental discipline consists of warrior studies, martial culture studies, combative behavior studies, and other professional military education. The character discipline is built around the Marine Corps' core values: Honor, Courage, and Commitment, Leadership Traits and Principles,



and troop information. The character discipline stresses the role of the "ethical" warrior on and off the battlefield 24 hours a day, seven days a week. The physical discipline consists of the physical techniques taught throughout the five belt levels. The physical discipline also encompasses the Combat Conditioning Program and the future Combat Fitness Test. Through the successful synergy of these disciplines at each belt level, a Marine will enhance their own warrior spirit and tactical cunning for all the challenges the Marine may face well into the 21st Century.

The following are the belt levels from beginner to expert, with a description of some of the lessons, and prerequisites for each belt:

- **Tan Belt** - Basic techniques and an introduction to the martial culture. There are no prerequisites for this belt. It is designed for the entry-level, basically trained Marine. All Marines attending boot camp at Parris Island and San Diego graduate as Tan belt Marines. All officers graduating at The Basic School graduate, at a minimum, as Tan belt Marines. There are 27.5 hours and 0 sustainment hours for this belt.
- **Gray Belt** - Expansion on basic techniques, introduction to ground fighting



and force continuum. The prerequisites for this belt are a recommendation from the commanding officer, complete Tan belt sustainment and integration training, and complete MCI 03.3 Fundamentals of Marine Corps Leadership. There are 32 training hours and seven sustainment hours for this belt.

• **Green Belt** - Expansion on Gray belt techniques, weapons integration / team integration training, and free sparring. The prerequisites for this belt are a recommendation from the commanding officer, complete Gray belt sustainment and integration training, Lance Corporal or above, and appropriate level PME complete. There are 30 training hours and 14 sustainment hours for this belt.

• **Green Belt Instructor** - This is the first belt level that is designated as Martial Art Instructor in accordance with the MCMAP program of instruction. An MOS is assigned to this level – 0916. The prerequisites for this belt are a recommendation from the commanding officer, complete Gray belt sustainment and integration training, Corporal or above, appropriate level PME complete, Physical Fitness Test score of First Class, and a current swim qualification (thousands of instructors have been trained throughout the Marine Corps).

• **Brown Belt** - Expansion on Green belt techniques, weapons integration/ team integration training, free sparring, and basic firearm retention and disarmament techniques. The prerequisites for this belt are a recommendation from the commanding officer, complete Green belt sustainment and integration training, Corporal or above, and appropriate level PME complete. There are 35.5 training hours and 21 sustainment hours for this belt.

• **Black Belt. 1st Degree** - Expert techniques, counters to pistol presentations, advanced anatomy and physiology. The prerequisites for this belt are a recommendation from the commanding officer, complete Green and or Brown belt sustainment and integration training, Sergeant or above, appropriate level PME complete, MAI qualified, and current swim qualification. An MOS is assigned to this level – 0917. All career Marines should earn their Black belt within 15 - 20 years from obtaining their initial Tan

belt. There are 34.5 training hours and 28 sustainment hours for this belt (over 1,000 Marines have been trained to the Instructor Trainers level).

• **Black Belt. 2nd to 6th Degree** - Marines designated as Instructors or Instructor Trainers, Military Occupational Specialty 0916 and 0917, respectively, are authorized to advance to these belt levels. The emphasis in these degrees is placed on giving back to the program, unit training, professional studies on martial cultures, and advanced skills within the martial arts program. The MACE is the only organization in the Corps that has the authority to promote to these levels.

The MCMAP techniques, complemented with subsequent training and sustainment to more advanced levels, provide every Marine with the ability and confidence to fight in hand-to-hand combat using any weapon available. The techniques also provide every Marine the self-discipline to understand the responsible use of force, both on and off the battlefield. The effective use of these two disciplines ensures the Marine Corps will win our nation's battles by being the most ready when the Nation is least ready, and secure the peace in the same battle. With the knowledge of the spectrum of violence (force continuum) taught during Gray belt training, and the combination of non-lethal techniques taught in Tan belt, Marines are equipped with the ability to effectively engage in Military Operations other than War (MOOTW).

ALMAR 034/07 was released in July of 2007. The purpose of the ALMAR was to promulgate the CMC's guidance and support for MCMAP. MCMAP continues to be integral to the development and sustainment of our Warrior Ethos. It is a key asset in developing both warfighting skills and character that all commanders should be utilizing to its fullest potential. The ALMAR goes on further to provide specific procedures and requirements for execution of MCMAP throughout the Corps. All Marines, both active and reserves, will be trained to Tan belt by the end of calendar year 2007. All infantrymen will be trained to Green belt by the end of CY 2008. All other Combat Arms Marines will be trained to Gray belt by the end of CY 2008.

The MACE is located aboard Camp Barrett at Raider Hall in Quantico, VA, on the west side of Interstate 95. From Raider Hall, the MACE conducts four Martial Arts Instructor Trainer (MAIT) courses and six to eight Martial Art Instructor (MAI) courses per year. The MACE also conducts a number of MAI mobile training teams around the Corps every year. Upon completion of the physically demanding, seven-week Martial Arts Instructor Trainer course, a Marine earns status as a First Degree Black belt Instructor Trainer, and a Combat Conditioning Specialist. Upon completion of the challenging three-week Martial Arts Instructor course, a Marine earns status as a Green belt Instructor.

The end state of the Marine Corps Martial Arts Program is to develop a professional Marine who is an arms carrying professional who cannot only fight under

a multitude of circumstances, but understands the moral dimensions of conflict, make ethical decisions in any situation, and upholds the image and high moral fiber upon which the Marine Corps has prided itself for more than 232 years. As Marines accept the training and live up to the intent of the program, the potential exists to generate and foster a Corps of martial and ethical warriors bound to the safety and welfare of their Marines. MCMAP is the vehicle the Corps will employ to propel the transformation from civilian to Marine and promises to develop the characteristics and traits we seek in all our leaders.

INFANTRY AUTOMATIC RIFLE (IAR)



DESCRIPTION

The Infantry Automatic Rifle (IAR) program seeks to replace the current M249 Squad Automatic Weapon in all infantry, reconnaissance and Light Armored Reconnaissance squads. The IAR will be a non-developmental, 5.56mm automatic rifle that is lighter, more durable, and more reliable than the M249 SAW.

OPERATIONAL IMPACT

Use of the automatic rifle will significantly enhance the automatic rifleman's maneuverability and displacement speed, while providing the ability to suppress or destroy targets of most immediate concern to the fire team.

PROGRAM STATUS

The IAR program entered the system development and demonstration phase during 1st Qtr, fiscal year 2008 following a successful Milestone B decision. A Milestone C decision is expected during 3rd Qtr, fiscal year 2008 following which the program will enter into the production and deployment phase. Initial operational capability is scheduled to be achieved during 3rd Qtr, fiscal year 2009 and full operational capability is scheduled to be achieved during 3rd Qtr, fiscal year 2010.

Procurement Profile:	FY2008	FY2009
Quantity	20	4500

Developer/Manufacturer:
TBD

MODULAR WEAPON SYSTEM (MWS)



DESCRIPTION

The Modular Weapon System (MWS) consists of an M16A4 rifle and an M4 carbine version. An M1913 Rail Adapter System (RAS) replaces the upper hand guards and incorporates a removable rear-carrying handle. The RAS provides the capability to mount various accessories, such as a modified M203 launching system, high intensity flashlights, and infrared laser target designators, as well as optics. The MWS M4 carbine variant is selectively fielded to Marines whose billet and/or mission requires the use of the shorter carbine.

OPERATIONAL IMPACT

The MWS will significantly improve the ability to mount various accessories and will enhance accuracy, target detection, and engagement capabilities in both day and night conditions.

PROGRAM STATUS

Fielding of the MWS began in fiscal year 2003. An increase in the Approved Acquisition Objective (AAO) due to complete replacement of M16A2 rifles Marine Corps-wide has extended fielding through fiscal year 2010. The AAO is now ~140,100 M16A4 rifles and approximately 60,000 M4 carbines.

Procurement Profile:	FY2008	FY2009
Quantity	25,560	21,116

Developer/Manufacturer:
M4: Colt Manufacturing Company, Inc., Hartford, CT

M16A4: Fabrique National Military Industries, Columbia, SC

CONVENTIONAL GROUND AMMUNITION

DESCRIPTION

Class V(W) Conventional Ground Ammunition consists of more than 300 individual ammunition and explosives items currently found in the Marine Corps ammunition stockpile. These items support all major weapons systems employed by the Marine Corps to include artillery, tank, small arms (such as 9mm, 5.56mm, 7.62mm, and .50-caliber), rockets, missiles, medium caliber (25mm and 40mm), mine clearance systems, 120mm rifled mortars for the Expeditionary Fire Support System, 30mm in support of the Expeditionary Fighting Vehicle, and the family of 60mm and 81mm mortar ammunition. Conventional ground ammunition also includes individually employed and hand-emplaced material, such as grenades, demolition equipment, pyrotechnics, and signaling devices. Also included are training and mission unique items, such as non-lethal munitions, Special Effects Ammunition Markings System, and Military Working Dog Scent Kits.

OPERATIONAL IMPACT

Ammunition procurements support a wide cadre of Marine Corps requirements that are categorized within two major elements. The first is the War Reserve Munitions Requirement, which includes combat, current operations/forward presence, and strategic readiness requirements. The second is the Training/Testing Requirement, which includes live-fire training and weapons-systems testing. The culmination of these two categories constitutes the Marine Corps' "Total Munitions Requirement" or TMR. With the continuing global missions facing the United States, it is imperative that the Marine Corps maintains a healthy procurement profile to address the growing demands of the Marine forces for both war-reserve and live-fire training. Past efforts within the Procurement Ammunition, Navy and Marine Corps (PAN&MC) appropriation postured the Marine Corps to maintain readiness levels while meeting current demands for ammunition and explosives required for success on the battlefield. During the past two fiscal years, PAN&MC investment has allowed for sufficient flexibility in supporting several munitions based urgent need statements generated by the Operating Forces.

PROGRAM STATUS

While not fully funded across within the fiscal year 2008 Presidents Budget, it is expected that our ammunition processes and the funding profile will continue to ensure sufficient ammunition is available for future combat or peacekeeping operations involving active-duty and Reserve Marine forces. Further, our investments will allow ammunition production to keep pace with the phased growth of the Marine Corps.

PROCUREMENT PROFILE

Utilizing the Marine Corps ammunition stockpile as a baseline, and assessed against the TMR, the fiscal year 2008 and fiscal year 2009 budget includes procurements of approximately 75 individual line

items of ammunition in various quantities. Select representative procurement quantities, by general munitions family, is provided at the following:

Procurement Profile:

Quantity:	FY2008	FY2009
Small Arms Family	103,396,405	132,068,835
Mortar Family	154,437	227,273
Tank Family	12,400	15,230
Artillery	116,609	569,196
Rocket Family	1,149	3,505

Developer/Manufacturer:
Various government and commercial manufacturing facilities, including the following representative sample:

Small Arms Family:
Alliant Tech Systems, Independence, MO; and, General Dynamics Ordnance Systems, Marion, IL

Mortar Family:
American Ordnance, Milan, TN; Medico, Wilkes-Barre, PA; L3 Communications, Lancaster, PA; HITECH, East Camden, AR; Wilkinson Manufacturing, Port Calhoun, NE; and, Armtec Defense Products, Coachella, CA.

Artillery Ammunition:
Chamberlain Manufacturing, Scranton, PA; and, American Ordnance, Middleton, IA

Tank Ammunition:
Alliant Tech Systems, Plymouth, MN; and, American Ordnance, Middleton, IA.

Rockets:
Talley Defense Systems, Mesa, AZ; and, SAAB Bofors Dynamics, Karlskoga, Sweden

MISSION PAYLOAD MODULE NON-LETHAL WEAPONS SYSTEM (MPM-NLWS)

DESCRIPTION

The Mission Payload Module Non-Lethal Weapons System (MPM-NLWS) program is a Marine Corps led, Joint Non-Lethal Weapons Directorate funded program that will develop and field new non-lethal munitions payload technologies designed to render personnel temporarily incapacitated, disoriented, or to immobilize personnel within a specified zone of influence. The objective of the program is to provide a capability to deliver counter-personnel non-lethal effects applicable to controlling crowds, denying or defending areas, controlling access, and engaging threats while providing sufficient standoff for protection of friendly forces.

OPERATIONAL IMPACT

The MPM-NLWS will allow the Marine infantryman to efficiently launch non-lethal munitions to a broader area with a greater duration of effects and volume of fire. Employment of these new non-lethal munitions will grant Commanders additional options short of lethal force and flexibility in implementing Rules of Engagement with less-restrictive measures.

PROGRAM STATUS

MPM-NLWS achieved Milestone A in 2004. A Milestone B decision is expected during fourth quarter, fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
TBD

COMMON LASER RANGEFINDER (CLRF)

DESCRIPTION

The Common Laser Rangefinder (CLRF) program is the single program of record responsible for fulfilling existing and future Marine Corps requirements for precision targeting laser rangefinders. CLRF is currently fielding the VECTOR 21B (AN/PEQ-13). The CLRF is a lightweight, class 1 eye-safe, targeting laser rangefinder capable of being carried and employed by a single Marine. It assists the operator in determining target location by measuring distance, direction, and vertical angle from the operator to the object through the use of digital magnetic compass technology. The CLRF aids target detection, recognition, and identification by providing optics similar in magnification and field of view to the M-22 binoculars. The CLRF interfaces with PLGR, DAGR, Target Handoff System, D-DACT, and the AN/PVS-14 for night operations.

OPERATIONAL IMPACT

The AN/PEQ-13 provides forward observers and forward air controllers a man portable tool that assists in target detection, recognition, identification, and location. It provides a target location error of 50m or less at a distance of 5 Km and 100m at a distance of 10 Km. The CLRF has a 7x internal magnification and an external optical enhancer that provides a total magnification of 10x. It is fielded with the DAGR which, when used with the VECTOR-21B, provides a 10-digit grid coordinate to the target that can be used to create an indirect fire mission. It is also fielded with the AN/PVS-14 monocular night vision sight which allows for low light and nighttime operation. The AN/PEQ-13 can also be integrated with the AN/PAS-22 Long Range Thermal Imager to provide locations of targets at greater ranges at night.

PROGRAM STATUS

CLRF is currently in the production and deployment life cycle phase. Initial operational capability occurred in May 2005 with fielding to units in Iraq and Afghanistan. Approximately 1267 systems of the total CLRF Approved Acquisition Objection (AAO) (2044 systems) have been fielded to date. The AAO is anticipated to increase to 2200.

Procurement Profile:	FY2008	FY2009
Quantity	TBD	TBD

Developer/Manufacturer:
Vectronix, Switzerland

Importer: Ashbury International Group, Charlottesville, VA

DAY OPTICS SYSTEMS

DESCRIPTION

The Rifle Combat Optic (RCO) (AN/PVQ-31A/B) is the cornerstone of the day optics program. The RCO is a fixed 4X optical aiming sight designed for use with the M4A1/M16A4 rifle configured with the MIL-STD-1913 Rail Adapter System. It attaches to the rail to provide the user a targeting tool to engage distant daylight and near low-lit targets with increased identification certainty.

The Holographic Diffraction Sight (HDS) is a non-magnified sight that facilitates the rapid engagement of targets at tactical distances. It can be mounted on the M4A1 Close Quarter Battle Weapon (CQBW) and is part of the CQBW collateral equipment set.

The HDS and RCO are compatible with all generations of night vision devices and can be positioned in tandem with Image Intensification systems.

The Medium Machine Gun Day Optic (MDO) and the Squad Automatic Weapon Day Optic (SDO) initiatives will acquire a commercial off-the-shelf, government off-the shelf, and/or non-developmental item solution to rapidly field a day sight for the M240B and the M249, respectively. The program objective is to select and field a high quality, durable, day optic.

OPERATIONAL IMPACT

The RCO is designed to provide enhanced target identification and hit probability for the M4A1/M16A4 rifle out to 800 meters. It is designed with dual illumination technology using a fiber optic light source for daytime illumination and tritium for night and low-light use. This allows the operator to keep both eyes open while engaging targets and maintaining maximum situational awareness.

The HDS employs a heads-up display that eliminates blind spots, constricted vision, and tunnel vision normally associated with tube-type sights. Target identification is improved through increased situational awareness by providing the operator the ability to engage targets with both eyes open. The see-through holographic reticle allows instant target recognition with no obscuration of the point of aim.

The family of machine gun optics will enhance the combat effectiveness of the machine gunner and automatic riflemen by enhancing their situational awareness, protective posture, and the ability to estimate range and positively identify threats prior to engagement.

PROGRAM STATUS

A total of 188,120 RCOs have been procured through fiscal year 2007 with deliveries extending through fiscal year 2008. 4,200 HDS were procured in fiscal year 2007 with deliveries to begin in first quarter fiscal year 2008 and completed in second quarter fiscal year 2008. The MDO/SDO is scheduled for procurement during fiscal year 2008.

Procurement Profile:	FY2008	FY2009
RCO	3,611	3,128
HDS	0	0
MDO/SDO	TBD	TBD

Developer/Manufacturer:

RCO: Trijicon Industries, Detroit, MI.

HDS: EO Tech, L3 Communications, Ann Arbor, MI.

MDO/SDO: TBD

IMAGE INTENSIFIER SYSTEMS

DESCRIPTION

The AN/PVS-14, Monocular Night Vision Device (MNVD) is a lightweight optical night vision device with 3rd generation image intensifier technology. The AN/PVS-14 can be used as a hand-held pocket scope. It can also be worn with a head, helmet, or weapon mount.

The Individual Weapon Night Sight – Image Intensified (IWNS I2) is an individual imaging device capable of acquiring targets at night with increased recognition certainty when used in conjunction with the Rifle Combat Optic (RCO – AN/PVQ-31A/B) variants. IWNS I2 is mountable on all versions of the M16 and M4 series weapons equipped with integral MIL-STD-1913 rail systems. The IWNS I2 is an in-line image intensifying clip-on night sight.

OPERATIONAL IMPACT

The monocular style of the AN/PVS-14 allows the Marine to maintain night eye adaptation in one eye while using the night vision device with the other eye. The AN/PVS-14 can be used in climates ranging from -49 to +123 Fahrenheit thus providing the Marine night vision capability in virtually any climate. The IWNS I2 clip-on device will allow the Marine Infantryman to quickly transform the RCO into a night optic sight, keeping the RCO permanently mounted on the rifle. This will also provide an additional night sight capability within the Marine Infantry Squad.

PROGRAM STATUS

The total of 121,000 MNVDs have been procured through fiscal year 2007 with deliveries extending to fiscal year 2009.

The IWNS I2 contract was awarded in fourth quarter fiscal year 2007 for the approved acquisition objective of 8051 systems. Deliveries will begin in second quarter fiscal year 2008 and extend through fiscal year 2009.

Procurement Profile:	FY2008	FY2009
AN/PVS-14:	15,048	15,040
IWNS I2:	3,000	5,051

Developer/Manufacturer:
AN/PVS-14: ITT Industries Inc., Roanoke, VA

IWNS I2: Insight Technology, Londonderry, NH

INTEGRATED INTRA SQUAD RADIO (IISR)



DESCRIPTION

The Integrated Intra Squad Radio (IISR) is a small, lightweight, handheld radio used for secure voice tactical communications. The two primary components for the IISR are the radio and headset. In addition to the radio and headset, the program office will procure mission-essential accessories for power, supply battery chargers, spare batteries, and variable key loading (KVL 3000). The IISR provides secure digital voice communications to facilitate command and control to small unit leaders, fire team leaders and individual Marines. The headset provides enhanced communications, situational awareness and hearing protection critical to effective war fighting.

OPERATIONAL IMPACT

The IISR is an interim system. Legacy tactical hand-held equipment within the Marine Corps had exceeded its expected life span and was rarely used. As a result, the IISR units primarily consisted of locally purchased, commercially available radios that were not interoperable with legacy combat net radios. The IISR has consolidated and exceeded legacy capabilities, lightened the combat load of individual Marines and small units, and reduced tactical hand-held radio operating costs.

PROGRAM STATUS

The IISR is in the Deployment Phase Post Milestone C. Marine Corps Systems Command currently has a production contract in place that facilitates joint acquisition, with fielding that commenced in fiscal year 2006. The Marine Corps' approved acquisition objective is 47,593 radios.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Motorola, Inc., Columbia, MD

LASER TARGETING AND ILLUMINATION SYSTEMS

DESCRIPTION

The AN/PEM-1 is a Class 2 laser device that emits a highly collimated beam of visible light for precise zeroing. This system facilitates zeroing of I2 sights, thermal weapon sights, and laser aiming devices. The AN/PEM-1 has a low power laser setting that is useful when performing weapon bore sighting during daylight, low light and darkness conditions.

The AN/PEQ-16A is a Class 3b laser device that provides a highly collimated beam of infrared energy for weapon aiming and an adjustable focus infrared beam for target illumination. The AN/PEQ-16A also has a white light illuminator that provides target identification/illumination without the use of night vision devices.

The HPLP (IZLID) is a Class 4 infrared laser pointer and illuminator for use with night vision or infrared sensitive camera systems. The beam is adjustable from tight pinpoint to a wide flood beam with a quick twist of the lens. A multi-position switch allows the laser to operate at 3 different power levels: LOW (500mW); HIGH (900mW); and PULSE (1000mW@304Hz).

The AN/PSQ-18A Grenade Launcher Day Night Sight Mount (GLDNSM) is an enhanced aiming device designed to enable the Marine to rapidly and precisely fire the M203 40mm grenade launcher in daylight, low light, and night conditions.

OPERATIONAL IMPACT

The AN/PEM-1 (LBS) enables Marines to quickly and accurately establish or reconfirm battle site zero (BZO) to weapons without consuming ammunition to verify the zero. The LBS is optimized for 5.56mm, 7.62mm, and .50 caliber weapons and their ancillary targeting devices (i.e., aiming lights, optical night vision, and thermal sights). In the training mode, the LBS will provide Marines with a training tool to practice zeroing skills. Employment of the LBS will reduce ammunition consumption associated with zeroing, and expedite the mission interchange of sights and targeting devices between weapons.

The AN-PEQ-16A will provide increased accuracy for every Marine by providing a laser aiming capability and the ability to illuminate targets in low light and night conditions when using a night vision device, a visible aiming light and an illumination capability to Marines that do not possess a night vision capability, and a visible white light that will allow the Marines to identify/illuminate targets in a low light environment.

The HPLP (IZLID) gives the Marine the option of using a pinpoint target pointer or a wide flood beam with the quick twist of a switch and allows the Marines to use 3 different power levels, low, high, and pulse.

The AN/PSQ-18A GLDNSM provides Marine grenadiers increased first or second round accuracy to within five meters.

PROGRAM STATUS

Procurement of an additional 2251 LBS systems will occur during fiscal year 2008. Procurement of the AN/PEQ-16A began in fiscal year 2007 and will extend through fiscal year 2008 with fielding scheduled to begin in fiscal year 2008. A total of 27 HPLP systems were procured in fiscal year 2007 with an additional 700 systems in fiscal year 2008 due to urgent need requirements to support Operation Iraqi Freedom. An additional 118 AN/PSQ-18A GLDNSMs are anticipated to be procured and fielded in fiscal year 2008.

Procurement Profile:	FY2008	FY2009
AN/PEM-1 (LBS)	2251	TBD
HPLP (IZLID)	700	TBD
AN/PSQ-18A (GLDNSM)	118	TBD
AN/PEQ-16A (MIPIM)	42,477	TBD

Developer/Manufacturer:

LBS/GLDNSM/MIPIM: Insight Technologies, Londonderry, NH

IZLID: B.E. Meyers & Co, Inc., Redmond, WA

TACTICAL HAND-HELD RADIO (THHR)



DESCRIPTION

The Tactical Hand-Held Radio (THHR) is a secure, hand-held unit that provides Marine Corps units with a standardized and maintainable radio to support the communications requirements of small units (platoon, squad, and team). The THHR operates in the AM and FM bands, contains embedded communications security, and is interoperable with other radio systems, such as Single-Channel Ground and Airborne Radio System (SINGARS) and HAVEQUICK II, in the single-channel mode and frequency-hopping modes.

OPERATIONAL IMPACT

The THHR is an interim system. Legacy tactical hand-held equipment within the Marine Corps had exceeded its expected life span and was rarely used. As a result, the hand-held units primarily consisted of locally purchased, commercially available radios that were not interoperable with Marine Corps combat net radios. The THHR has consolidated and exceeded legacy capabilities, lightened the combat load of individual Marines and small units, and reduced tactical hand-held radio operating costs.

PROGRAM STATUS

In fiscal year 2007, the Assistant Secretary of Defense for Networks and Information Integration reinstated the requirement for services to obtain a Joint Tactical Radio System (JTRS) approved product. A JTRS approved product consists of "a radio that is National Security Agency certified, JTRS Technology Laboratory certified, Joint Interoperability Test Command certified, and Software Communications Architecture compliant." Presently, the only two known solutions are the AN/PRC-148(V)(C) by Thales Communications and the AN/PRC-152(V)(C) by Harris Corporation. The Marine Corps' approved acquisition objective is 27,074 radios.

Procurement Profile:	FY2008	FY2009
Quantity:	9,300	0

Developer/Manufacturer:
AN/PRC-148(V)(C): Thales Communications, Inc., Clarksburg, MD

AN/PRC-152(V)(C): Harris Corporation, Inc., Rochester, NY

THERMAL OPTICS SYSTEMS

DESCRIPTION

The Marine Corps has five key thermal optics systems: the Thermal Weapon Sight II (TWS II), which includes the Medium Weapon Thermal Sight (MWTS) (AN/PAS-13C/D (V)2) and the Heavy Weapon Thermal Sight (HWTS) (AN/PAS-13C/D (V)3); Individual Weapon Night Sight-Thermal (IWNS-T); the Mini Thermal Imager (MTI); the Medium Range Thermal Bi-ocular (MRTB); and the Long Range Thermal Imager (LRTI) (AN/PAS-22).

The TWS II provides capabilities similar to its predecessor AN/PAS-13B (TWS I) with technology improvements that reduce weight and provide longer battery life. It is a self-contained lightweight, compact, durable, battery-operated, infrared imaging sensor used for target acquisition. The MWTS and HWTS have the same design, but different telescopes and software. Both TWS II sights come with a MIL-STD-1913 rail grabber interface, including a vertical spacer. The TWS II will be mounted on the M249 in the Infantry Battalions and on all crew-served weapons including the M240, M2 and Mk19.

The IWNS-T is an in-line clip-on thermal sight designed to operate with the Rifle Combat Optic (RCO - AN/PVQ-31A/B). It will detect and recognize targets and threats at 300 meters without affecting the sight picture and battlesight zero of the RCO in all lighting conditions, including total darkness, and atmospheric obscurants such as smoke and fog.

The MTI is a pocket thermal device with integrated infrared laser pointer that can detect and recognize targets and threats up to 150 meters. The device is intended for use by small unit leaders in close quarters scenarios in all lighting conditions and atmospheric obscurants.

The MRTB will provide small unit leaders with the ability to detect and recognize potential threats in a limited visibility environment within tactical ranges up to 850 meters. The bi-ocular design enhances human performance elements that improve operational use.

The LRTI will be employed by Force and Division Reconnaissance Units, and target acquisition units (forward observers, forward air controllers, etc.) providing a long range observation capability, approaching 7,500 meters, and significantly increases the lethality and survivability of the Warfighter.

OPERATIONAL IMPACT

New thermal optics systems provide a complementary capability that will broaden the range of environments and conditions in which Marines are able to effectively operate. Because thermal optics are not subject to background light "wash-out", they are ideal for use in both day and night lighting conditions, including total darkness. Additionally, thermal optics can be used under conditions of limited visibility such as darkness, smoke, fog, dust and haze.

PROGRAM STATUS

A total of 16,123 TWS II AN/PAS-13C/D systems have been procured through fiscal year 2007 with manufacturer deliveries continuing in fiscal year 2008-2009. Contract award for the IWNS-T is scheduled for first quarter fiscal year 2008 with deliveries planned for fiscal year 2008-2009. A total of 658 MTIs were procured during fiscal year 2007 with deliveries through the first quarter fiscal year 2008. The MRTB is scheduled for contract award and procurement during fiscal year 2008 to support an approximate acquisition objective of 4,000 to 5,000 systems. A total of 1,297 LTRIs were procured during fiscal year 2006-2007 with deliveries extending through fiscal year 2008.

Procurement Profile:	FY2008	FY2009
TWS II (AN/PAS-13D)	3,902	4,705
TWS II (AN/PAS-13C)	0	1,698
IWNS-T	1,266	926
MTI	32	0
MRTB	TBD	TBD
LRTI	0	0

Developer/Manufacturer:
AN/PAS-13D TWS II: DRS Technologies, Melbourne, FL

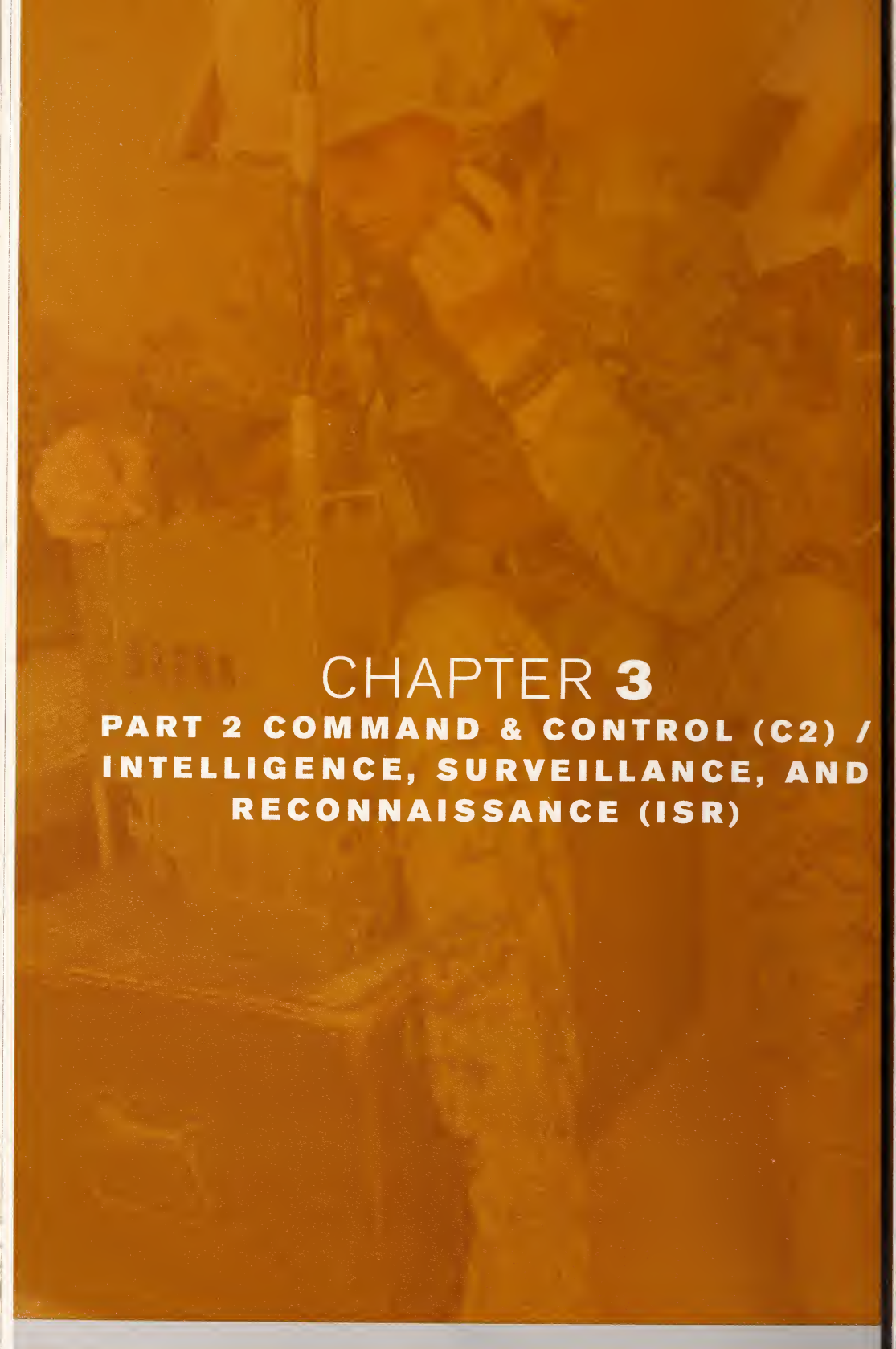
AN/PAS-13C TWS II: BAE Systems, Lexington, MA

MTI/IWNS-T: Insight Technology, Londonderry, NH

MRTB: TBD

LRTI: Kollsman Inc, Merrimack, NH

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CHAPTER 3

PART 2 COMMAND & CONTROL (C2) / INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE (ISR)

INTRODUCTION

Leading-edge technologies and systems are dramatically increasing the tactical "reach" of the Individual Marine, which is no longer limited by the range of his rifle or the distance he can throw a hand grenade. Indeed, operations at the squad level and Individual Marine—the "pointed end of the spear"—can have now far-reaching operational-level if not strategic impacts. The need is thus growing for enhanced command-and-control capabilities, which include communications, intelligence, surveillance and reconnaissance, to network operational relationships from the headquarters to the Individual Marine on the ground or in the air. For example, we are fielding additional equipment to infantry battalions to enable Individual Marines to fight and win on the distributed and non-linear battlefield.

The Marine Corps' Command & Control (C2) Harmonization Strategy incorporates joint integrating concepts and C2 mandates and articulates our goal of delivering an end-to-end, fully integrated, cross-functional capability to include forward-deployed and reach-back functions. The strategy's goal is a seamless capability that crosses war fighting functions and supports the Individual Marine from the supporting establishment at home to our Marines in contact with the enemy, taking the best of emerging capabilities and joint requirements to build a single solution. Our C2 Harmonization

Strategy will also increase our capability to train our staffs through MAGTF Integrated System Training Centers.

A critical first step in this direction is the ongoing development of the Common Aviation Command and Control System (CAC2S). CAC2S fuses data from sensors, weapons systems and other C2 systems into a single integrated display. It allows rapid flexible operations in a common, modular and scalable design by reducing the current stovepipe systems into one hardware/software solution with streamlined equipment training. CAC2S will enable Marine Air Ground Task Force (MAGTF) commanders to control the timing of organic, joint, or coalition air power, assault supports and Intelligence, Surveillance, and Reconnaissance (ISR) in their battlespace while operating within a joint task force

The Marine Corps continues to increase its ISR capabilities through the use of an enterprise approach known as the Marine Corps ISR Enterprise (MCISR-E)—resulting in a fully integrated architecture compliant with joint standards for data interoperability. MCISR-E will provide networked combat information and intelligence down to the squad level across the range of military operations. To ensure Marines have access to these new capabilities, our MAGTF C2 systems feed combat operation centers with information from wide field of view persistent surveillance systems such as Angel Fire, traditional ISR systems such as our family of Unmanned Aircraft Systems and unattended ground sensors, and non-traditional collection assets such as Ground-Based Operational Surveillance System.

The programs discussed in this section will enable MAGTF commanders to exercise effective command and control and conduct ISR operations. In addition, these programs support the ability of MAGTFs to participate in or lead joint and multinational operations. Importantly, they will ensure that Individual Marines understand their commanders' intent and can carry out complex operations—in peacetime, crisis and war—that safeguard vital U.S. interests, citizens and friends.

DISTRIBUTED COMMON GROUND SYSTEM – MARINE CORPS (DCGS-MC)

DESCRIPTION

The Distributed Common Ground System – Marine Corps (DCGS-MC), in compliance with the Department of Defense DCGS Family of Systems concept, is a service-level effort to migrate select USMC Intelligence, Surveillance, and Reconnaissance (ISR) processing as well as exploitation capabilities into a single, integrated net-centric baseline. As the Processing, Exploitation, Analysis & Production component of the Marine Corps ISR Enterprise concept, DCGS-MC will consist of functional capability sets that support Marine intelligence analysts across the Marine Air Ground Task Force by making organic and external all-source ISR data more visible, accessible, and understandable.

The DCGS-MC concept originated with the DCGS Mission Area Initial Capabilities Document Joint Requirements Oversight Council Memorandum 001-03, dated 6 Jan 03, which established the overarching requirements for a collection of net-centric capable systems that will contribute to joint and combined warfighter needs for ISR support. Each service is directed to pursue a coordinated developmental path based on the implementation of common enterprise standards and services consistent with the Department of Defense's net-centric vision. The DCGS Integration Backbone (DIB) is intended to be the basic building block for interoperability between the Services' DCGS programs. DCGS is currently managed by a separately charted DIB Management Office that directs day-to-day developmental efforts in coordination with the Army, Navy, Marine Corps, and US Special Operations Command DCGS program offices with oversight provided by Office of the Under Secretary of Defense (Intelligence).

OPERATIONAL IMPACT

The program objectives are to migrate select ISR processing and exploitation capabilities for raw intelligence data and to provide enhanced knowledge management of finished intelligence products on an integrated baseline featuring fully open enterprise architecture and modular hardware components. The program is anticipated to enter the technology development phase in early fiscal year (FY) 2008 and will leverage heavily from the developmental efforts of its sister Services' DCGS programs, as their own developmental efforts are fully underway.

PROGRAM STATUS

The DCGS-MC program is proceeding as an Acquisition Category III program with Commander, Marine Corps Systems Command designated as the program's Milestone Decision Authority. The program acquisition strategy is based on an incremental development path optimized to rapidly introduce government and commercial technologies, enterprise standards, and modular hardware components in order to minimize costs and program risk.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
TBD

MARINE CORPS INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE ENTERPRISE (MCISR-E)

Marine Corps Intelligence must be prepared to transition our capabilities into the future Defense Intelligence Enterprise in order to ensure interoperability with the other Services and national agencies. We are actively transforming the partially networked Distributed Common Ground/Surface System - Marine Corps (DCGS-MC) into a net-centric Intelligence, Surveillance and Reconnaissance (ISR) Enterprise. This enterprise solution will be called the Marine Corps ISR Enterprise (MCISR-E) and will include all USMC ISR assets and functions, covering the entire range of ISR Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities. The migration to MCISR-E relies on the standards provided by the DCGS Integrated Backbone to ensure interoperability amongst all the Services' DCGS systems.

Unlike DCGS-MC which only addresses the analysis and production tasks, MCISR-E will encompass the entire Intelligence Cycle. This will strengthen the Marine Corps operational planning and decision-making processes. The process begins with our ability to see and task ISR platforms (persistent ISR), while executing the entire intelligence cycle simultaneously. This will include everything in the cycle from the sensors through the initial posting of the collected data, processing, exploitation, production, storing of resultant intelligence products, and, most importantly, the use of intelligence by commanders and staffs (actionable intelligence). MCISR-E leverage the collaborative capabilities offered by developing communications technology, thereby enabling reachback to garrison locations for substantial intelligence analysis and production support. We will have enhanced interoperability and access to national, theater and other intelligence agencies. MCISR-E will facilitate rapid processing of data into actionable intelligence through user-friendly displays, software, tools, and decision aids.

The web-based nature of this architecture, leveraging the best commercial standards in use throughout the world today, will establish an unrivaled ISR operational capability to support Marines at all levels and "in every clime and place" in order to continue our history of success in the future.

AVIATION COMMAND AND CONTROL

The Marine Air Control Group provides the Aviation Combat Element commander with the Marine Air Command and Control System (MACCS) agencies necessary to exercise command and control of aviation assets in support of Marine Air Ground Task Force (MAGTF), naval, and joint operations. These agencies provide the ability to plan, coordinate, command, and supervise the application of the six functions of Marine Aviation.

While the MACCS is sustaining its existing systems to support today's combat operations, it is also modernizing its expeditionary air command and control (C2), sensor, and weapons capabilities in an effort to be fielded between fiscal year 2008 and fiscal year 2017. The key thrusts of this modernization effort are focused on expeditionary packaging, modern information technology, and joint integration.

In conjunction with equipment modernization, Marine Aviation C2 is supporting a number of new initiatives that will bring new capabilities, improved doctrine and training, and organizational change that will ensure more efficient and effective aviation support to expeditionary naval joint, and coalition forces. This effort is being guided by the Aviation C2 Transformation Task Force (TTF) under the guidance of Headquarters, Marine Corps (HQMC) Aviation Command and Control (APC).

AVIATION C2 TRANSFORMATION TASK FORCE

The Deputy Commandants for both Aviation and Combat Development chartered the Aviation C2 TTF in November 2002 to ensure the effective introduction of the Aviation C2 family of systems (FoS) into the operating forces. The Marine Corps has programmed the FoS fielding between fiscal year 2008 and fiscal year 2017. The cornerstone of the Aviation C2 FoS, the Common Aviation C2 System (CAC2S), will reach Initial Operational Capability (IOC) in fiscal year 2009. Next, networked ground-based sensors and unmanned aerial vehicles are scheduled to reach Initial Operating Capability between fiscal year 2010 and fiscal year 2011. The TTF provides a proactive mechanism for HQMC advocates, expeditionary force development organizations, acquisition commands, supporting establishment activities, and operating forces to formulate and implement changes to Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLPF). The TTF membership is comprised of operating force and supporting establishment stakeholders.

MACCS-X

To support testing and combat development of future Aviation C2, the Marine Corps established the MACCS-X Operational Development Team (ODT) in July 2005. The mission of MACCS-X ODT

is to provide developmental and operational test support, evaluate the concept of employment for the transformation of the MACCS, and validate DOTMLPF concepts and recommendations.

MARINE AVIATION C2 VISION

The vision for Aviation C2 is the development of a system that contains expeditionary multi-functional C2 nodes able of performing the full array of aviation C2 functions throughout the range of military operations. Our system must seamlessly integrate with all existing C2 systems and fully support the MAGTF and Joint Force commanders from the demands of the initial 72 hours of battle to the follow on demands of Phase Four operations. As we proceed forward, we will transform incrementally replacing our existing capability with the most capable, effective and responsive system that technology, resources and personnel can provide.

COMMON AVIATION COMMAND AND CONTROL SYSTEM (CAC2S)



DESCRIPTION

The Common Aviation Command and Control System (CAC2S) will provide a complete and coordinated modernization of the equipment of the Marine Air Command and Control System (MACCS). CAC2S will eliminate current dissimilar systems and provide the Aviation Combat Element with the necessary hardware, software, and facilities to effectively command, control, and coordinate air operations while integrated with naval and joint command and control (C2). CAC2S will be comprised of standardized modular and scalable tactical facilities, hardware, and software that will increase the mobility of the MACCS. In 2005 the Marine Requirements Oversight Council chose CAC2S along with Command and Control Personal Computer as foundation components of Marine Air Ground Task Force (MAGTF) C2. This decision paves the way for improved integration across the MAGTF.

OPERATIONAL IMPACT

CAC2S, in conjunction with MACCS organic sensors and weapons systems, supports the tenets of Expeditionary Maneuver Warfare and fosters joint interoperability with the C2 systems. CAC2S will replace legacy C2 systems in the following Marine aviation C2 agencies: Tactical Air Command Center (TACC), Tactical Air Operations Center (TAOC), Direct Air Support Center (DASC), Marine Air Traffic Control Detachment, and Low Altitude Air Defense Battalion.

PROGRAM STATUS

CAC2S is being developed in two increments as part of an evolutionary acquisition strategy. Increment I will replace the functionality of the TACC, DASC and TAOC, and will baseline the core information fusion and management function common to all increments. Increment II will achieve integration between CAC2S and the Air Traffic Navigation and Coordination System for Air Traffic Control functionality. CAC2S is an Acquisition Category II Program in the system development and demonstration phase. CAC2S completed an operational assessment during October 2006. Initial operational capability is planned for fiscal year 2009.

Procurement Profile:	FY2008	FY2009
Quantity:	12	12

Subsystems (Low Rate Initial Production)

Developer/Manufacturer:
Raytheon Integrated Defense Systems,
San Diego, CA

AN/TPS-59(V)3 RADAR SYSTEM



DESCRIPTION

The AN/TPS-59(V)3 radar system is the Marine Corps' only long-range, 3-Dimensional, air surveillance, Theater Ballistic Missile (TBM) capable radar. The AN/TPS-59(V)3 radar system is a transportable, solid-state, L-band radar. It is the Marine Air Ground Task Force's (MAGTF) principal air surveillance radar and is integrated into the AN/TYQ-23(V)4 Tactical Air Operations Module. It may also be configured for operation with the AN/MSQ-124 Air Defense Communications Platform to provide TBM track data to the Joint Tactical Information Distribution System. The radar has become a key component in the employment of the Navy's Cooperative Engagement Capability and is the Marine Corps' lead sensor in the development of the Composite Tracking Network.

OPERATIONAL IMPACT

The AN/TPS-59(V)3 is optimized to detect and track TBMs and air-breathing targets, either of which can be serious threats to MAGTF operations. The AN/TPS-59(V)3 will primarily be used to support MAGTF aviation during sustained operations ashore and as part of a joint theater air and missile defense architecture. The radar supports the MAGTF commander in Anti-Air Warfare operations with en route traffic control to a distance of 300 nautical miles (NM) and TBM surveillance to 400 NM. Eight of the 11 AN/TPS-59(V)3 radar systems were deployed during Operation Iraqi Freedom and Operation Enduring Freedom, with five radars deployed in direct support.

PROGRAM STATUS

The AN/TPS-59(V)3 is in the sustainment phase of its life cycle. Incorporation of engineering change proposals and technical refresh of equipment will address ongoing diminishing manufacturing sources and obsolescence issues as well as improved capabilities and new interface requirements.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Lockheed Martin Corporation, Syracuse, NY

COMPOSITE TRACKING NETWORK (CTN)

DESCRIPTION

Composite Tracking Network (CTN) is the adaptation of the United State's Navy Cooperative Engagement Capability (CEC) modified for Marine Corps use. This network will allow Marine Corps Command and Control (C2) agencies to distribute composite tracking data and fire control data to C2 nodes and weapon systems. CTN is an essential element of the future Marine Corps Command, Control, Communications, Computers and Intelligence architecture.

OPERATIONAL IMPACT

CTN will provide the Marine Air Ground Task Force (MAGTF) Commander a sensor netting solution that will help defend friendly forces from incoming aircraft and cruise missiles by correlating sensor data from local and remote radars in the CEC network. It will provide the MAGTF precise, target quality track data simultaneously to networked nodes thereby increasing and improving situational awareness and battlespace coverage.

PROGRAM STATUS

CTN is developing and testing adaptive layers that interface CTN with the Tactical Air Operations Module, Common Aviation Command and Control System, and the AN/TPS-59 long range radar. Milestone B was approved 1st Qtr fiscal year 2008 and Milestone C is scheduled for 2nd Qtr fiscal year 2008. Initial operational capability is scheduled for 3rd Qtr fiscal year 2009.

Procurement Profile:	FY2008	FY2009
Quantity:	0	4

Developer/Manufacturer:
NSWC, Crane; Crane, Indiana

GROUND/AIR TASK ORIENTED RADAR (G/ATOR)

DESCRIPTION

Ground/Air Task Oriented Radar (G/ATOR) is an expeditionary, high mobility multi-wheeled vehicle-based single materiel solution to fill the Multi-Role Radar System and Ground Weapon Locating Radar's operational requirements. G/ATOR has four incremental deliveries. Increment I is a medium-range air surveillance radar used to detect and track aircraft, cruise missiles, and unmanned aerial vehicles. The system will serve as a gap-filler radar by providing three-dimensional coverage of those areas out of view of the AN/TPS-59 (V) 3. The radar is intended to replace all the missions currently associated with the AN/TPS-63 and AN/MPQ-62 radars. Increment II provides the next-generation ground weapon locating radar. The G/ATOR will replace the AN/TPQ-46A as the Marine Corps hostile indirect fires target locating system. The primary mission of the G/ATOR, employed in the counter fire role, is to locate mortar, artillery, and rocket threats and provide accurate location information to friendly counter fire weapons. The secondary role of the counter fire G/ATOR is to provide "did hit" data to friendly weapon systems for adjust fire and battle damage assessment. Increment III will improve upon Increment I's air mission capabilities. Enhancements include: Advance Combat ID circuitry and software (non-cooperative target recognition), integrated Cooperative Engagement Capability/ Composite Tracking Network, advanced ECCM capabilities (decoys), Radar Environmental Simulator and Integrated Data Environment capabilities. Increment IV will add air traffic control functionality and replace the AN/TPS-73 radar and the Airport Surveillance Radar portion of the AN/TPN-31A Air Traffic Navigation, Integration, and Coordination System.

OPERATIONAL IMPACT

G/ATOR will have the responsiveness needed to detect, identify, and track enhanced, low-level air-breathing targets, as well as indirect fire threats during the execution of Expeditionary Maneuver Warfare operations. In addition, the radar will be capable of cueing and reporting on targets detected within its coverage limits to designated air and ground command and control agencies. The reduced logistical footprint of the radar will enhance the capabilities of the Marine Air Command and Control System and artillery regiments in support of all phases of MAGTF operations. It will possess the mobility required to keep pace with supported maneuver elements and will complement the Marine Corps long-range radar, the AN/TPS- 59 (V) 3, by providing accurate low-level tracks. The G/ATOR's ground and air mission capabilities give the MAGTF commander a unique operational flexibility.

PROGRAM STATUS

G/ATOR Increment I has an ASN (RD&A) approved Milestone B in 2005 and is currently in the System Development and Demonstration Phase. The In-

crement I contract was awarded in Mar 07 to Northrop Grumman with a scheduled Initial Operational Capability of Sep 2011. Increment II Milestone B decision is expected during July 2007, Increment III Milestone B is expected during December 2008, and Increment IV Milestone B is expected by November 2012.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Northrop Grumman

ASSAULT AMPHIBIOUS VEHICLE – COMMAND; COMMAND AND CONTROL UPGRADE PROGRAM (AAVC7A1 C2 UPGRADE)

DESCRIPTION

The Assault Amphibious Vehicle – Command; Command and Control Upgrade Program (AAVC7A1 C2 Upgrade) is focused on providing an improved command and control (C2) capability to the Operating Forces until the Expeditionary Fighting Vehicle is fielded. The AAVC7 C2 Upgrade Program will include replacement of the current antiquated UHF and HF tactical radios with the currently fielded radio systems, integration of a UHF-Satellite Communications (SATCOM) capability, replacement of the vehicle intercommunications system, integration of a Blue Force Situational Awareness (BFSA) capability, redesign of the staff workstations, and integration of a tactical data network capable of hosting applicable Marine Air Ground Task Force C2 applications. (Advanced Field Artillery Tactical Data System (AFATDS), C2 Personal Computer (C2PC), Intelligence Operations Server (IOS) V1)

OPERATIONAL IMPACT

The AAVC7A1 C2 upgrade program will provide the supported infantry battalion/regimental staffs with an improved C2 capability needed to address the C2 capabilities gap that currently exists during amphibious operations. Specific operational improvements are the addition of a UHF-SATCOM capability, integration of a BFSA capability, and the integration of a tactical data network capable of hosting AFATDS, C2PC, and IOS V1.

PROGRAM STATUS

The AAVC7A1 C2 Upgrade Program was designated an Acquisition Category IV (T) program on 31 August 2007 and is slated to enter the System Development and Demonstration Phase of the project Life Cycle during the 2nd Quarter (QTR) fiscal year 2008. Initial Operational Capability is planned for fiscal year 2009 and Full Operational Capability is planned for fiscal year 2010.

Procurement Profile:	FY2008	FY2009
Quantity:	8	31

Developer/Manufacturer:
SPAWAR Charleston, SC

GLOBAL BROADCAST SERVICE (GBS)



DESCRIPTION

Global Broadcast Service (GBS) is a smart-push/user-pull satellite communications system that provides large volumes of information to deployed, on-the-move and in garrison forces. The receive suite will receive and disseminate global broadcasts, at up to 23 megabits-per-second of classified and unclassified (two different enclaves) standard information products such as: Imagery, Intelligence, Video (NTSC and Digital), Theater message traffic, Joint and service-unique news, Weather, Morale Welfare and Recreation programming, mapping, logistics, unclassified/classified access, documents such as Air Tasking Orders or Operations Plans as well as audio and video feeds such as civilian broadcast news, (i.e. CNN, FOXNEWS) and Predator unmanned aerial vehicle transmissions. The Marine Corps will procure and field the Transportable Ground Receive Suite (TGRS) portion of the GBS (AN/TSR-9).

OPERATIONAL IMPACT

GBS will augment other communications systems and provide a continuous, high-speed, one-way information flow to deployed, mobile or garrison forces. GBS will support routine operations, training and military exercises, special activities, crisis, situational awareness, weapons targeting, reconnaissance, and the transition to and conduct of opposed operations short of nuclear war. The system will consistently provide the warfighter with information that allows him to take action inside the decision cycle time of his adversaries.

PROGRAM STATUS

The GBS is a joint program and is currently in the Production and Deployment phase of the acquisition process. The Marine Corps Approved Acquisition Objective (AAO) is 81 TGRSs. The program has fielded 61 of the 81 AAO. The remaining 20 TGRSs have been procured and are currently in production. Fielding of the AAO will be completed in fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Raytheon, Reston, VA

INTELLIGENCE ANALYSIS SYSTEM FAMILY OF SYSTEMS (IAS FOS)



DESCRIPTION

The Intelligence Analysis System (IAS) Family of Systems (FoS) uses a three-tiered approach for receiving, parsing, analyzing, and disseminating fused all-source intelligence data. The first tier, the Marine Expeditionary Force (MEF) IAS, is a mobile system that supports the MEF Command Element. The second tier, the Intelligence Operations Server (IOSv2a or IOSv3), is a team portable system designed to support the Intelligence Operations of the Major Subordinate Commands (MSC). The third tier, the Intelligence Operations Work-station (IOWv2), serves as the intelligence link for the battalion and squadron commands to higher headquarters. It can also operate as a stand-alone system.

OPERATIONAL IMPACT

Fielding of the MEF IAS has provided Marine Air Ground Task Force commanders with a mobile, all-source, intelligence data fusion and dissemination capability. The IOSv2a (Unix) and IOSv3 (Windows) give the commander at the MSC, Marine Expeditionary Unit, regiment, and group levels access to time-sensitive intelligence data that is crucial to the decision making process and the conduct of Intelligence Preparation of the Battlefield. The IOW is the link to intelligence data for the battalion and squadron level of command, using client/server technology for a "reach back" capability to higher commands for intelligence information updates. The IOWv2 can also function as a stand-alone workstation, operating with certain limitations in a disconnected environment.

PROGRAM STATUS

The MEF IAS is currently in the post production/fielding phase of the acquisition process. All systems were fielded to the operational forces along with receiving Marine Reserve units. The entire IAS FoS was refreshed during fiscal year 2006 and will be again in 2009.

Procurement Profile:	FY2008	FY2009
Software:	1	1
Service Pack:	1	1
IAS FoS Refresh		1

The IAS FoS executes periodic hardware and peripheral refreshes as per the PM NMCI/IT refresh schedule. One major software fielding and one service pack is fielded per fiscal year.

Developer/Manufacturer: MTC Services Corporation Stafford, VA; KnowBiz San Diego, CA; EMA Charleston, SC; & SPAWAR Charleston, SC

Hardware components: Commercial-off-the-shelf (COTS) and non-developmental items.

Software components:
Various COTS and government-off-the-shelf (GOTS) developers
Key GOTS software developers:

System integration of hardware and software: EMA Charleston, SC; Dynamic Tactics for C4ISR Solutions Charleston, SC; L-3 Communications Virginia Beach, VA; SRC Charleston, SC; & SPAWAR Charleston, SC.

JOINT SURVEILLANCE TARGET ATTACK RADAR SYSTEM, COMMON GROUND STATION (JSTARS)

DESCRIPTION

The Joint Surveillance Target Attack Radar System, Common Ground Stations (JSTARS) is a long-range, air-to-ground surveillance system which consists of an airborne element and a ground element. The airborne element, the E-8C aircraft, contains a large phased array radar mounted on the fuselage and multiple OZ-63 Air Data Terminal (ADT) operator terminals. Radar data is distributed via an encrypted, jam-resistant Surveillance and Control Data Link (SCDL) for transmission to one of two JSTARS ground systems: the Common Ground Station (CGS) or Joint Services Workstation (JSWS). The sensor suite provides detection and tracking data on targets through the use of the Moving Target Indicator (MTI), Fixed Target Indicator (FTI), and Synthetic Aperture Radar (SAR). FTI and MTI data are used to detect, locate, and identify the movement of enemy targets, while SAR identifies critical fixed targets such as bridges, harbors, airports, buildings or stationary vehicles. The CGS is a ground-based receiving and processing display system which receives JSTARS data directly from the E-8C JSTARS aircraft through the SCDL to the Ground Data Terminal. Once JSTARS data is collected at the ground receive site, MTI/FTI/SAR data is sent across the Marine Air Ground Task Force Command, Control, Communications, Computers and Intelligence network through existing and evolving tactical data networks. The CGS is also capable of receiving and fusing imagery data from unmanned aerial systems directly onto JSTARS data, providing an enhanced collection processing capability. The JSWS is a functionally equivalent, transit cased subset of the CGS. While the JSWS can be used in conjunction with a dedicated SCDL it typically gets its JSTARS data via a classified network connection or satellite communications feed.

OPERATIONAL IMPACT

The CGS and JSWS support a wide range of global missions including wartime, battlefield management, full spectrum management, peacekeeping operations, the war on drugs and contingency operations. Capable of operating in diverse climates (geographic and weather conditions), the CGS allows commanders to view the battlespace and make decisions with the highest possible level of certainty. As an all-weather, organic Marine Corps intelligence asset, the CGS and JSWS have played a crucial role on the Global War on Terrorism, resulting in JSTARS assuming an additional mission of Improvised Explosive Device prevention and detection.

PROGRAM STATUS

As a joint program that is post-Milestone "C", JSTARS is in the production and deployment phase. The Marine Corps has fielded three JSTARS CGSs and five JSWSs. Each Marine Expeditionary Force has a CGS and JSWS. The remaining two JSWSs are used for testing, evalu-

ation and development of future MTI capabilities.

The program is currently conducting two levels of effort: maintenance and upgrade of the current JSTARS ground systems, and research and development of future MTI collection capabilities.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Prime Hardware Integrator: General Dynamics Command, Control, Communications, and Computers (GC4S), Scottsdale, AZ

Software Integrator: Harris Corporation, Melbourne, FL

Surveillance Control Data Link (SCDL) Developer: Cubic Defense Systems, San Diego, CA

MARINE AIR-GROUND TASK FORCE SECONDARY IMAGERY DISSEMINATION SYSTEM (MSIDS)

DESCRIPTION

The Marine Air Ground Task Force (MAGTF) Secondary Imagery Dissemination System (MSIDS) is the Family of Systems (FoS) that provides organic tactical digital imagery collection, transmission and receiving capability to the MAGTF Commander. MSIDS is comprised of components necessary to enable Marines in all echelons of the Marine Expeditionary Force, including battalions and squadrons, to capture, manipulate, annotate, transmit and receive images in near-real-time, internally with subordinate commands. The MSIDS capability resides at the MAGTF G/S-2 sections, ground reconnaissance units, and infantry Surveillance Targeting Acquisition platoons. MSIDS FoS is currently employed in every location where the Marine Corps conducts military operations. MSIDS is comprised of commercial-off-the-shelf (COTS) equipment.

OPERATIONAL IMPACT

MSIDS provides the only self-contained, hand-held, ground-prospective imagery capability to MAGTF reconnaissance units. This imagery is essential for mission planning and intelligence. Other MAGTF near real-time imaging systems, such as unmanned aerial systems and F/A-18 Advanced Tactical Airborne Reconnaissance System, provide only overhead imagery and cannot capture the detail and ground perspectives available through MSIDS. In asymmetric threat environments - where targets of interest are often small, highly mobile units such as terrorists or guerilla groups - it is imperative that the MAGTF be able to identify individuals and structures from the ground level. The required level of detail is not available from overhead sources. Technology insertions via an increment refresh plan will enable reconnaissance Marines equipped with MSIDS to receive needed technological upgrades in a more timely fashion.

PROGRAM STATUS

The Marine Corps refreshed the entire MSIDS imagery capability during fiscal year 2002. The approved MSIDS acquisition strategy specifies a refresh of 1/3 of system components. This is done through a spiral increment of the COTS hardware and software components. The fiscal year 2008 refresh will consist of replacing all handheld computers and updating the operating software as well as procuring and fielding MSIDS equipment in support of the 202K initiative. The fiscal year 2009 refresh will consist of components for the Video Exploitation Workstation (VEW) and a continuation of the 202K initiative and fielding. This effort is essential to the MSIDS life-cycle support. Moreover, it keeps the equipment from becoming obsolete, unreliable, and unsupportable.

Procurement Profile:	FY2008	FY2009
Quantity:		
MSIDS computers/SW:	250	100
Personal Data Controllers:	250	100
Cameras Night Vision	200	100
Thermal:	0	100

Developer/Manufacturer:
Canon, Panasonic and ITT

TACTICAL DATA NETWORK (TDN)





DESCRIPTION

The current Tactical Data Network (TDN) augments the existing Marine Air Ground Task Force (MAGTF) communications infrastructure by forming the communications backbone for MAGTF tactical data systems. The TDN system consists of gateways (TDN Gateways) and servers (Data Distribution Servers (DDS)), interconnected with one another and their subscribers via a combination of common-user, long-haul transmission systems, in conjunction with local area networks. TDN brings a scalable system of devices that will provide a robust data communications backbone to the commander.

OPERATIONAL IMPACT

TDN provides its subscribers with secure and non-secure access to strategic, supporting establishment, joint and other-service component tactical data networks, with the capability to send and receive electronic messages, share files, as well as provide a solid backbone for an Active Directory architecture.

PROGRAM STATUS

The Marine Corps has completed fielding and new equipment training of TDN Data Distribution Systems-Reset (DDS-R) in response to an urgent and compelling Global War On Terror requirement.

TDN (Gateway) Refresh will begin testing during 2nd Quarter (QTR) fiscal year 2008, with fielding to begin 3rd Qtr fiscal year 2008.

The contract to procure a modular DDS variant is expected to be awarded during 2nd Qtr fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:		
Gateway upgrades	31	0
Modular DDS variants	350	40

Developer/Manufacturer:
TDN (DDS-R)
General Dynamics Communication Systems, Taunton, MA

TDN (Gateway)
SPAWAR
Charleston, SC

Modular DDS variants (DDS-M)
TBD

TACTICAL EXPLOITATION GROUP (TEG)

DESCRIPTION

The Tactical Exploitation Group (TEG) is the primary tactical imagery exploitation system in the Marine Corps. Modular and scaleable, the TEG employs a tiered approach consisting of two echelon-tailored configurations—the TEG-Main (TEG-M) and the TEG-Remote Workstation (TEG-RWS). At the Marine Expeditionary Force (MEF) level, the TEG-M serves as a deployable Imagery Intelligence (IMINT) ground station capable of data linking imagery directly from theater and tactical reconnaissance platforms such as the F/A-18D (R/C), the U-2, and Global Hawk. For support to echelons below MEF, the TEG-RWS is a deployable IMINT workstation designed to access national, theater, or tactical imagery repositories via classified network and/or Global Broadcast System to support tailored on-site imagery analysis during deployments. The TEG disseminates secondary imagery products and imagery exploitation reports to the MEF commander and subordinate commanders in support of tactical operations, strike planning, precision targeting, detection and location of targets of opportunity, and combat damage assessment for re-strike planning and intelligence assessment. The TEG employs commercial off-the-shelf, government off-the-shelf, and non-developmental item computer hardware and software to enable rapid upgrades, as well as maintain commonality and interoperability with other Marine Corps joint intelligence and imagery systems.

OPERATIONAL IMPACT

The TEG provides the MAGTF and/or Joint Task Force commander with an organic capability to produce IMINT in support of operations. Anticipated upgrades will enable the processing of imagery from additional unmanned aerial systems emerging sensors and platforms; improve video capture and exploitation capabilities; enhance net-centric functionality; and increase modularity.

PROGRAM STATUS

The TEG is an Acquisition Category III program which received a favorable Milestone C fielding decision in fiscal year 2005 and was granted approval by the Milestone Decision Authority to enter the Production and Deployment Phase. Initial operational capability was achieved in fiscal year 2005. Fielding of TEG-M occurred during fiscal year 2006 with full operational capability anticipated during fiscal year 2008. The TEG-RWS recently completed a technology refresh as the result of an Engineering Change Proposal (ECP). This included a transition from the UNIX operating system to Windows. Production and fielding was completed during third quarter fiscal year 2007 for 113 RWSs. The TEG-M has begun a spiral

upgrade focusing on increased modularity and net-centric capability as the result of an ECP. Production is underway with a first article delivery planned for first quarter CY 2008. As the IMINT component of the Distributed Common Ground Surface/System - Marine Corps (DCGS-MC), TEG is scheduled to fully migrate to DCGS-MC in the 2011 timeframe.

Procurement Profile:	FY2008	FY2009
Quantity:	113	5

Developer/Manufacturer:
Prime Hardware Integrator: Northrop Grumman, Linthicum, MD

Software Integrator: Northrop Grumman, Linthicum, MD,

Common Data Link: L3 Communications, Salt Lake City, UT

TACTICAL HYDROGRAPHIC SURVEY EQUIPMENT (THSE)

DESCRIPTION

Tactical Hydrographic Survey Equipment (THSE) provides a means for underwater charting, navigation, and hydrographic survey of selected littoral frontages. The THSE will provide tactical underwater navigation and hydrographic data into littoral penetration points in support of the Marine Air Ground Task Force (MAGTF). This will enhance mission capability while ensuring the safety of all combatant divers whether training for or conducting combat operations. Because the Navy no longer supports routine confirmatory underwater beach reconnaissance missions to the high water mark or those carried out within rivers, bays and estuaries, responsibility for the conduct of such missions now resides with deployed Marine Reconnaissance Forces.

OPERATIONAL IMPACT

The THSE provides state-of-the-art navigation and underwater mapping capability, integrating Global Positioning System, Doppler sonar and computer technology to provide Marine combatant dive teams with the capability to conduct tactical sub-surface hydrographic reconnaissance by electronically charting bottom conditions of the seaward approach to littoral penetration points in support of the MAGTF. Currently, combatant divers rely on 1940's era tools and techniques to conduct hydrographic surveys and provide confirmatory beach reports. This entails using a plumb line, and a writing board to log data.

PROGRAM STATUS

The THSE is in the technology development phase of the acquisition life cycle. Defense Advanced Research Projects Agency (DARPA) is providing the research and development funding and project management through fiscal year 2008. During fiscal year 2008 and fiscal year 2009, DARPA and the Marine Corps Systems Command will be conducting performance testing and evaluations to determine its ability to meet all performance requirements. THSE is planned to be procured and fielded in fiscal year 2010 and fiscal year 2011.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Honeywell/TRDI

TOPOGRAPHIC PRODUCTION CAPABILITY (TPC) FAMILY OF SYSTEMS (FOS)

DESCRIPTION

The Topographic Production Capability (TPC) is the only Marine Corps' Family of Systems (FoS) that provides an integrated, independently deployed, self-contained Geospatial Information System designed for data acquisition, manipulation, analysis and dissemination. It provides the commanders and staffs with Geospatial Intelligence (GEOINT) support to all levels of the Marine Air Ground Task Force (MAGTF).

The TPC FoS provides the capability to task, collect, process, exploit, analyze, produce, store, and disseminate all-source GEOINT information as a foundation for the Common Operational Picture/Common Tactical Picture for the MAGTF. TPC provides an extensive reach-back functionality to intelligence agencies (National Geospatial Agency, Central Intelligence Agency, Defense Intelligence Agency), as well as reach-back to the Marine Corps Intelligence Activity (MCIA). TPC also enables reach-back to its parent Topographic Platoon, theater Joint Intelligence Centers, and Joint Analysis Centers for specialized capabilities (i.e., data extraction) in addition to collaborative analysis and/or production.

The TPC FoS provides critical, timely, and accurate digital and hardcopy GEOINT to support mission planning and execution. The TPC FoS provides a flexible and extensible data management framework to support the capturing of both unstructured and structured GEOINT data that will allow data to be organized and "tagged" for later use in data interoperability, data discovery and data fusion.

The TPC FoS consists of the Marine Corps Geospatial Information Library (MCGIL), Tactical Geospatial Information Library (TGIL), the Deployable Geospatial Information Library Server (DGIL/S), the Deployable Geospatial Information Library Workstation (DGIL/W), the Digital Terrain Analysis Mapping System (DTAMS), the Digital Terrain Analysis Mapping System – Light (DTAMS-L) and the Geodetic Survey Set (GSS).

The TPC FoS requires amphibious task force afloat connectivity when deployed with a Marine Expeditionary Unit (MEU) or a Marine Expeditionary Brigade afloat.

OPERATIONAL IMPACT

The TPC FoS is the only tactical system in the Marine Corps inventory, which satisfies the Marine Corps GEOINT requirements across the doctrine, organization, training, material, leadership, personnel and facilities spectrum. The TPC FoS is used by the Topographic Platoon of the Marine Expeditionary Force (MEF), providing deployable modules to the Major Subordinate Commands and the MEU. It may also be used to support the Commander, Joint Task Force or Marine Component Commander.

The TPC FoS provides the capability to scale up or down, depending on the type of mission, size of the force along with specified geospatial requirements. The TPC FoS is a transportable, highly mobile, modularized network of systems

that allows the commander to exercise near real-time control, coordination and direction of MAGTF geospatial and geographic intelligence production operations. The TPC FoS supports the following:

TPC FoS facilitates the Marine Corps concept of Expeditionary Maneuver Warfare by providing Commanders/Squad leaders improved battlespace visualization and common understanding.

TPC FoS supports the transition to irregular warfare by helping to build tailored made products of cities that readily identify religious, historical and cultural landmarks. Additionally TPC FoS supports Distributed Operations by building tailored made products for individual teams.

The employment of TPC FoS in Operation Iraqi Freedom and Operation Enduring Freedom continues to grow exponentially by providing tailored made geospatial products of cities, areas of operation and road networks to squad leaders up to the MEF Commanding General.

TPC FoS is completely interoperable with other Marine Corps systems, other services and Commonwealth forces.

TPC FoS supports all phases of Operational Maneuver from the Sea, Sustained Operations Ashore, Ship-To-Objective Maneuver and other Expeditionary Operations.

PROGRAM STATUS

The TPC FoS has been fielded to I, II, III MEFs, MCIA and the School of Geospatial-Intelligence. Additionally, TPC FoS components have been assigned to each of the Marine Divisions, the Marine Logistics Groups, the Chemical Biological Incident Response Force in Indian Head, MD, and the Marine Corps Special Operations Command. TPC FoS has been designated as an Acquisition Category IV(M) Program and is post Milestone "C," meaning it is in the production and deployment phase by finalizing the 19 DTAMS-L in the inventory. The TPC FoS program office has satisfied the Urgent Universal Need Statement requirement by completing the fielding of 17 DTAMS-L to the Operational Forces in the 3rd Quarter (Qtr) of fiscal year 2007. The current fielded systems will be refreshed during fiscal year 2008, enhancing the current residential capability.

Procurement Profile:	FY2008	FY2009
Quantity:		
TGIL	0	0
DGIL-S	0	0
DGIL-W	0	0
DTAMS	0	0
DTAMS-L	19	0
GSS	0	0

Developer/Manufacturer:
Optia, Dell

Hardware/Software Integrator: Northrop Grumman Information Technology, TASC, Chantilly, VA

USMC NETWORK OPERATIONS (NETOPS)

USMC Network Operations (NetOps) is the Marine Corps-wide operational, organizational, and technical construct for operating and defending the Marine Corps Enterprise Network (MCEN) from the core to the tactical edge. NetOps is defined as the integrated planning and employment of military capabilities to provide the friendly net environment needed to plan, control and execute military operations and conduct Service functions. It involves time-critical, operational-level net security. NetOps relies on the understanding, application, and integration of information technology, technology standards, and standard processes that provide traditional systems and network management (Fault Management, Configuration Management, Accounting Management, Performance Management, and Security Management); information and infrastructure protection; and the ability to maneuver information across Global Information Grid terrestrial, space, airborne and wireless environments. NetOps is conducted at all levels of command (strategic, operational, and tactical) and influences all core constituents of the MCEN: communications infrastructure, computing, information assurance, and enterprise services. It provides commanders with MCEN Situational Awareness and MCEN C2 capabilities through the integration of Enterprise Management, Net Defense, and Content Management.

Marine Corps Network Operations and Security Center (MCNOSC) is the Corps' nucleus for executing the NetOps mission including enterprise network services, network support to deploying forces, technical development of network-enabled IT solutions, and providing the Marine Corps with a responsive, cohesive, and formidable global network defense capability. As the pervasive threats to our network grow while the complexity of the network evolves in support of net-centric capabilities, the MCNOSC leads the defensive fight against the enemy and provides the means by which to integrate the network into a single weapons system. The MCNOSC performs the first two of the three NetOps Essential Tasks. Marine Corps Enterprise Information Technology Services (MCEITS) handles MCEN Content Management.

MCEN ENTERPRISE MANAGEMENT

MCEN Enterprise Management (MEM) is the functional capabilities and operational processes necessary to monitor, manage, and control the availability, allocation, and performance within and across the MCEN. MEM includes Enterprise Services Management, Application Management, Systems Management, Network Management, Computing Infrastructure Management, Satellite Communications Management, and Electromagnetic Spectrum Management. MCNOSC performs MEM via the following initiatives:

- ***Operations Center*** monitors and maintains situational awareness of MCEN operations 24 X 7
- ***Defense Messaging System Central Operations Center***
- ***Expeditionary Support*** team provides

network support to deploying or deployed Marine forces
- ***Mainframe Enterprise Services*** provides mainframe management and support
- ***Network Operating System*** standardization and support for the enterprise
- ***Marine Corps Circuit Management Office***
- ***E-LMR*** engineering and technical support
- ***Network Plans and Engineering*** evaluates and develops network-based technical solutions and capability improvements in support of the warfighter mission.

MCEN NETWORK DEFENSE

MCEN Network Defense (MND) is the set of functional capabilities and operational processes necessary to protect and defend the MCEN. This includes Computer Network Defense with associated Response Actions, Critical Information Protection, and the operational management of Information Assurance capabilities. MND activities consist of the policies and procedures that prepare systems, networks, and personnel to protect information. The following MCNOSC initiatives contribute to the MCEN net defense mission:

- ***Marine Corps Computer Emergency Response Team*** enables global network operations of the MCEN through protection, detection, and effective net defense response actions
- ***Marine Corps Information Assurance Red Team***
- ***Public Key Infrastructure*** enterprise operations
- ***Infrastructure Security*** personnel operate and control Point of Presence equipment at all MCEN Boundaries
- ***Vulnerability Management Team***

MCEN CONTENT MANAGEMENT

MCEN Content Management (MCM) is the set of functional capabilities and operational processes necessary to monitor, manage, and facilitate the visibility and accessibility of information within and across the MCEN. MCM maneuvers information across the Enterprise, focusing on positioning and repositioning of content to satisfy mission needs. MCM involves compiling, cataloging, caching, distributing and retrieving data, managing information flow to users, and enabling the execution of the commander's information dissemination policy. MCM enables information users to define and set information needs (profiles) to facilitate timely information delivery and to search information databases and retrieve required products.

MCM capabilities will be largely provided through MCEITS initiative. MCEITS will provision several Enterprise Information Technology Centers as well as a number of 'Distributed Platforms' and deployable 'Expeditionary Platforms' that will constitute the Marine Corps Enterprise Applications Environment. MCEITS will also provide a USMC Portal Solution. USMC applications and data will be hosted and stored within this environment and made available through the portal. The MCEITS Operations Center will work with its customers, mainly the USMC Functional Area Managers in deriving application hosting and portal solutions that ensure that required data and services are available to the right users in the right locations at the right time.

ANGEL FIRE (AF)

DESCRIPTION

Angel Fire (AF) is a wide field of view persistent surveillance (WFVPS) aerial collection asset. AF was primarily developed by engineers at the Air Force Research Laboratory (AFRL) and Los Alamos National Laboratory (LANL). Its capabilities were demonstrated to the Marine Corps throughout 2006 during Mojave Viper exercises in Twenty-nine Palms, CA. Recognizing the utility of a near-real time (NRT) WFVPS sensor, the Marine Corps became AF's service sponsor. AF is a material solution to Marine Forces' articulated lack of dedicated persistent surveillance assets in the Iraqi theater of operations. In late 2006, the Marine Corps, together with AFRL and LANL, obtained both Joint (via the Joint Improvised Explosive Device Defeat Organization) and service funding for an operational assessment of AF.

Angel Fire was designed to provide a dedicated, NRT imagery sensor and distribution system to commanders and units at the tactical level. The WFVPS grid coverage is superior to current Unmanned Aerial Systems (UAS) in that a typical UAS images a relatively small constantly changing area as the air vehicle moves. AF provides a larger, persistent, geo-rectified image with archival capability. While it's wider angle lenses typically result in a loss of detail when compared to a UAS, AF's sensor design and software mitigates this limitation. AF is able to maintain an approximate .5 meter ground sampling distance, a resolution sufficient for identifying dismounted personnel. AF's current configuration consists of the following:

- A manned aerial platform with a belly mounted electro-optic sensor. The long-term goal is to mount the WFVPS sensor package on a UAS.
- The ground receive station, servers, and workstations enable analysts to view data within a ten second latency period at a rate of 1-2 frames per second.
- One or more servers allow analysts to access the imagery in small, user-defined packets thereby minimizing bandwidth requirements. Multiple users may also simultaneously access data independent of each other.
- Stored data is accessible in the same manner as the NRT data; imagery storage is only limited by user requirements and disk space.
- The workstation allows the analyst/viewer to interface with the sensor via controls for zoom, pan, tilt, and the imagery's speed.
- A "TiVo-like" rewind function enables access to archived data in order to facilitate forensic and post-event analysis. This capability provides value added to the tactical commander operating in an irregular warfare environment.

OPERATIONAL IMPACT

As a dedicated WFVPS capability, AF provides tactical commanders with enhanced situational awareness and more precise targeting, thereby increasing operational flexibility, speed, and lethality. AF also enables additional flexibility in managing low density/high demand intelligence, surveillance, and reconnaissance assets.

PROGRAM STATUS

AF began its operational assessment in support of MNF-W in August 2007.

This WFVPS capability was fielded in response to an urgent requirement for a dedicated, near real time, imagery sensor and distribution system with forensic capability for tactical level (i.e., battalion) commanders and units.

Procurement Profile:
This is one (1) suite, consisting of four (4) sensors, deployed in Operation Iraqi Freedom. The purchase and deployment of additional sensors depend upon operational force feedback and the technical readiness of enhanced capabilities.

Developer/Manufacturer:
Air Force Research Laboratory, Los Alamos National Laboratory, CA

GLOBAL COMMAND AND CONTROL SYSTEMS-INTEGRATED IMAGERY AND INTELLIGENCE (GCCS-I3) INITIATIVE

DESCRIPTION

The Global Command and Control Systems-Integrated Imagery and Intelligence (I3) Initiative, (GCCS-I3), is a joint program in which the Marine Corps participates. The program enhances operational commanders' intelligence-situation awareness and track management. It uses a standard set of integrated tools and services to maximize commonality and interoperability across the tactical, theater, and national communities. The GCCS-I3 operates in joint and service-specific battlespace, and is interoperable, transportable, and compliant with the Common Operating Environment (COE).

OPERATIONAL IMPACT

The GCCS-I3 is the core software for the Intelligence Analysis System Family of Systems, which is the senior system in the System-of-Systems concept. The GCCS-I3 Initiative works to ensure that the systems' software is interoperable with the Marine Corps communication and data transmission systems. Several Marine Corps Intelligence Systems uses GCCS-I3 as their core software and/or individual segments as major components of their software baseline, including:

- Technical Control and Analysis Center (TCAC);
- Topographic Production Capability (TPC);
- Tactical Exploitation Group (TEG);
- Counterintelligence/Human Intelligence (HUMINT) Equipment Program (CIHEP);
- Tactical Remote Sensor System (TRSS);
- Joint Surveillance Target Attack Radar System (JSTARS); and
- Tactical Electronic Reconnaissance Processing and Evaluation System (TERPES).

PROGRAM STATUS

The GCCS-I3 Initiative has several long- and short-term goals to enhance the interoperability and procurement decisions for Marine Corps intelligence systems. In the long-term, this program seeks to achieve an integrated, fully interoperable Marine Corps Intelligence System-of-Systems. In the near-term, the program seeks to establish a process, and a corresponding set of procedures, designed to allow the Marine Corps to make informed procurement decisions in its efforts toward achieving the long-term goal. The GCCS-I3 effort has four mission areas: Administration and Infrastructure Support; Program Manager-Level Configuration Management Processes and Functions; Science and Technology Engineering Support; and, Integration Support Team.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Various

TACTICAL REMOTE SENSOR SYSTEMS SYSTEM-OF SYSTEMS (TRSS SOS)

DESCRIPTION

The Tactical Remote Sensor Systems (TRSS) System-of-Systems (SoS) program provides unattended sensors, retransmission systems, and sensor monitoring systems. TRSS are deployed and operated by Ground Sensor Platoons in support of the commander's intelligence collection effort. Once deployed, the remote systems operate autonomously, providing continuous, unattended surveillance of distant areas of the battlespace. TRSS is frequently employed to provide surveillance and reconnaissance in places where it is too dangerous to maintain personnel or not tactically practical to deploy other surveillance systems. Remote sensors use multiple sensing modalities and radio communications methods to detect and report personnel and vehicle activity in designated areas of interest. All sensors are passive; detection is accomplished when target-generated energy is sensed. Current detection modalities include seismic, acoustic, magnetic, and imaging (thermal and electro-optical). Future modalities will include radio frequency, ultra-wide band, and electromagnetic.

OPERATIONAL IMPACT

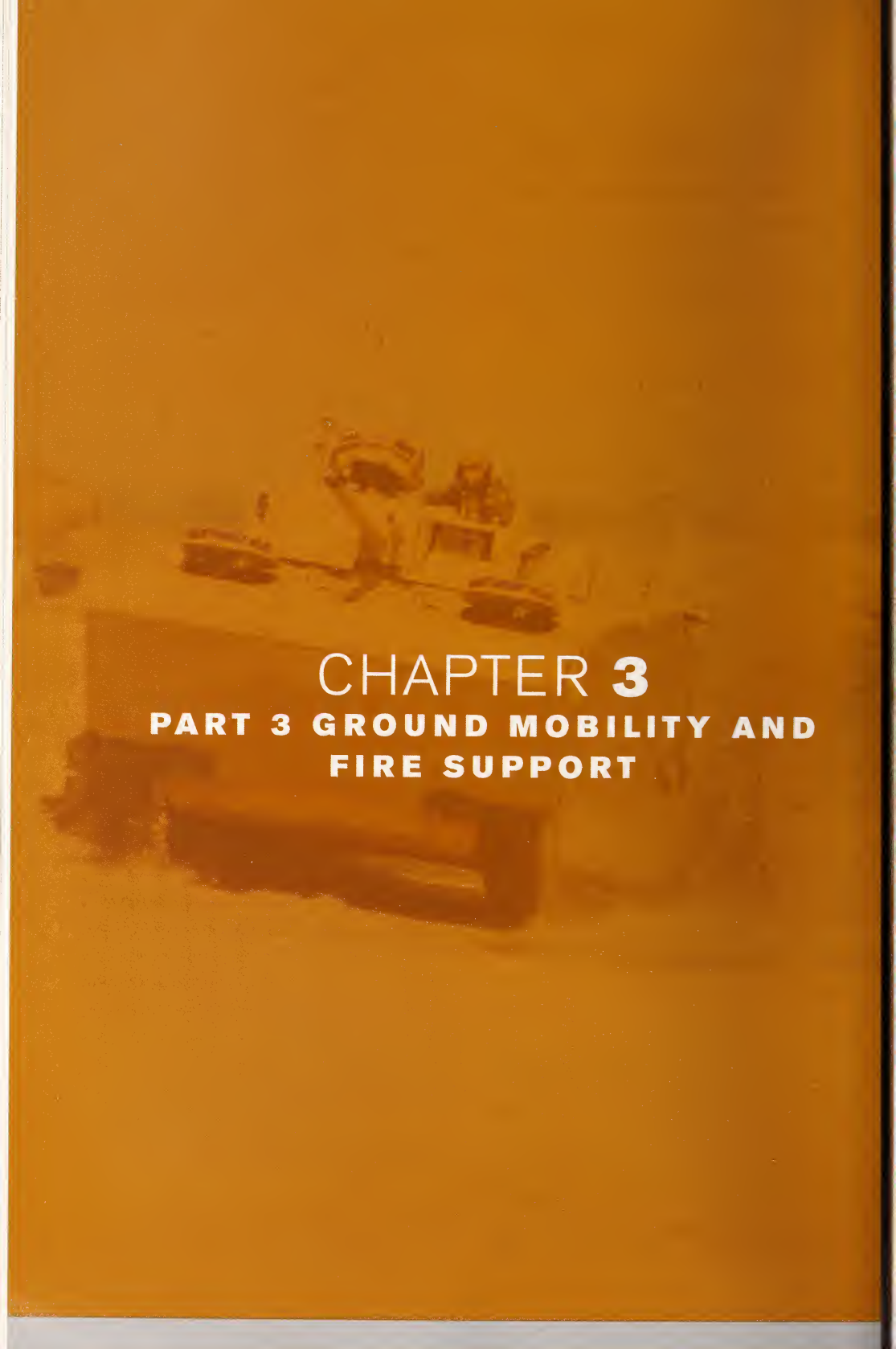
TRSS enables commanders to continuously monitor areas of interest without leaving Marines in high risk locations. The information provided by the sensors can be used to cue higher level surveillance systems (such as unmanned aerial systems) and gathered by Intelligence Analysis Systems for further analysis. The program executes an incremental acquisition strategy to continuously improve the system's capability to discriminate target activity and report relevant targets in a timely manner.

PROGRAM STATUS

TRSS is a post milestone C program (production and deployment phase) and is currently undergoing a technology refresh which will enhance the current capabilities of the existing Standard Operating Procedures. These enhancements include longer range imagers, improved, networked communications, and up-armored mobile monitoring stations that have a smaller footprint. The fielding plan for TRSS was recently increased from 23 to 33.

Procurement Profile:	FY2008	FY2009
Quantity:		
Thermal Imagers	344	20
Electro-optical Imagers	344	20
Mobile Monitors	21	0
Sensor Sets	10	11
Hand Held Programmer	40	0
Radio Repeaters (Relay)	130	429
Maintenance Kits	3	0

Developer/Manufacturer:
L-3 NOVA Engineering, Cincinnati, OH
L-3 Communications East Camden, NJ
SPAWAR Systems Center, Charleston, SC
Apogen-QinetiQ North America, Carlsbad, CA



CHAPTER 3

PART 3 GROUND MOBILITY AND FIRE SUPPORT

INTRODUCTION

Today's operational environments demand speed, agility and mobility of ground forces to respond to if not anticipate an adversary's actions, often in complex, ambiguous battlefields, against irregular forces and in a wide variety of operational—desert, jungle and Arctic—environments. Individual Marines must also be capable of deterring and defeating the conventional forces of more traditional adversaries, where the ability to maneuver with speed and agility—from the sea, across the beach to inland objectives—also remains paramount to achieving mission objectives. An important enabler of maneuver warfare, mobility across all terrain is enhanced by the Individual Marine's ability to call in offensive and defensive fires from ground-based, airborne and seaborne systems. Timely, responsive, high-accuracy and precision fires can often mean the difference between success and failure.

The Army and Marine Corps are leading the Services in developing tactical wheeled vehicle requirements for the joint force. The defined capabilities reflect an appropriate balance in survivability, mobility, payload, networking, transportability, and sustainability. The Army/Marine Corps Board has proven a valuable forum for coordination of the development and fielding strategies; production of armoring kits and up-armored High Mobility Multi-Purpose Wheeled Vehicles; and rapid response to requests for Mine Resistant Ambush Protected vehicles.

In 2007, "The Major Combat Operations Analysis for fiscal years 2014 and 2024" study scrutinized the current organic fire support of the Marine Air Ground Task Force (MAGTF), to determine the adequacy, integration, and modernization requirements for ground, aviation, and naval surface fires. We also performed a supplemental historical study using Operation Iraqi Freedom data to examine MAGTF Fires in the full spectrum of warfare. These studies reconfirmed our development of the Triad of Ground Indirect Fires.

Several innovative systems related to fire support significantly enhance the warfighting efficiency and effectiveness of the MAGTF. Such systems include the M777 Lightweight Howitzer, High Mobility Artillery Rocket System, Expeditionary Fire Support System, Advanced Field Artillery Tactical Data System, and the Target Location, Designation, and Handoff system.

The ground mobility programs discussed in this section are designed to ensure that Individual Marines are mobile and survivable on the modern battlefield and possess critical fire-support systems that increase the MAGTF's lethality and effectiveness.

EXPEDITIONARY FIGHTING VEHICLE (EFV)



DESCRIPTION

The Expeditionary Fighting Vehicle (EFV) will be the primary means of tactical mobility for the Marine rifle squad during the conduct of amphibious operations ashore. The EFV is a self-deploying, high-water speed, armored amphibious vehicle capable of transporting Marines from ships located beyond the horizon to inland objectives. The EFV will have the speed and maneuvering capabilities to operate with main battle tanks on land. In addition, the vehicles can use bodies of water, such as oceans, lakes, and rivers, as avenues of approach and maneuver. The EFV is an armored, fully tracked infantry combat vehicle that will be operated and maintained by a crew of three Marines, and have a troop capacity of 17 Marines with their individual combat equipment. The EFV replaces the Assault Amphibious Vehicle that was fielded in 1972 and will be more than 40 years old when the EFV is fielded.

OPERATIONAL IMPACT

The EFV's high-speed land and water maneuver, highly lethal day/night fighting ability, advanced armor, and NBC protection will significantly enhance the lethality and survivability of Marine maneuver units across the spectrum of operations. The EFV enables the Navy and Marine Corps team to project power from the sea base in a manner that will exploit intervening sea and land terrain, achieve surprise, avoid enemy strengths, and generate never-before-realized operational tempo across war fighting functions.

PROGRAM STATUS

The EFV program is in the Systems Development and Demonstration (SDD) phase of the acquisition process. This phase was extended to fiscal year 2011 to enable the program to execute a redesign effort to improve reliability performance. During the early part of this phase, the program completed the design and fabrication of nine second generation SDD prototypes and one Live Fire Test Vehicle. Nine of the SDD vehicles were used as part of an extensive developmental test program that resulted in the vehicle demonstrating nearly all key performance parameters during the comprehensive Milestone C Operational Assessment (MS C OA) from January to September 2006. However, reliability performance during the MS C OA did not meet required levels. An extended SDD phase will include a redesign for reliability effort, new prototype fabrication and follow-on prototype testing. The Low Rate Initial Production decision (Milestone C) is programmed for fiscal year 2012. The Joint Services Manufacturing Center in Lima, OH, will be the production and assembly site for

the EFV. The current acquisition objective is to produce 573 EFVs, a 40% reduction from the 1,013 vehicles previously planned. Initial operational capability is scheduled for 2015 and full operational capability is scheduled for 2025.

Procurement Profile:	FY2008	FY2009
	0	0

Developer/Manufacturer:
General Dynamics Amphibious Systems, Woodbridge, VA

ASSAULT AMPHIBIOUS VEHICLE (AAV) FAMILY OF VEHICLES (FOV), MODIFICATION KIT PROGRAM



DESCRIPTION

The Assault Amphibious Vehicle (AAV) Modification Kit Program provides life-cycle support to ensure cost-effective combat readiness for the AAV Family of Vehicles (FOV). This is accomplished through continuous review of sub-systems to maintain system supportability, safety, reduce total ownership costs, and improve fleet readiness. The Modification Kit Program, also known as the Mod Kit Line, primarily supports engineering change proposal development/procurement/ fielding. The AAV Modification Kit Program supports AAV FOV-Reliability, titled Availability, and Maintainability/ Rebuild to Standard (RAM/RS) vehicles and non- RAM/RS vehicles.

OPERATIONAL IMPACT

The AAV Modification Kit Program will allow these vehicles to continue to support Marine Air Ground Task Force operations. Changes include safety upgrades, the replacement of obsolete or no longer available subsystems or components, reliability/maintainability upgrades that reduce total ownership cost, integration of needed Command, Control, Communications, Computers, and Intelligence (C4I) systems, and interoperability improvements.

PROGRAM STATUS

Current system modifications include integration of the Defense Advanced Global Positioning System Receiver system, development and integration of rifle racks that accept both the M4 and M16 rifles, and integration of a thermal sight system. Future modifications will include the integration of C4I systems as required, C-variant upgrade, radio controlled improvised explosive device jamming system, transparent armor gun shield installation, armored sight periscope cover, upgraded turret, and continued incorporation of reliability, maintainability, and safety improvements.

Procurement Profile:	FY2008	FY2009
Quantity:	Various	Various

Developer/Manufacturer:
Thermal Sight: L3 Cincinnati Electronics

Engineering Support: BAE Systems, Triangle, VA

MARINE PERSONNEL CARRIER (MPC)

The Marine Personnel Carrier (MPC) will serve as a medium lift personnel carrier and complements the capabilities offered by the Joint Light Tactical Vehicle for light lift purposes and the Expeditionary Fighting Vehicle (EFV) for heavy lift purposes.

OPERATIONAL IMPACT

Although no design decisions have been made, the MPC will be lighter than the EFV and capable of carrying nine to twelve combat-equipped Marines.

PROGRAM STATUS

The MPC is currently in the Technology Demonstration Phase (TDP) pre-Milestone A. The MPC program is undergoing an Analysis of Alternatives which will lead to a capabilities development document (CDD) in fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
TBD

MINE RESISTANT AMBUSH PROTECTED VEHICLE (MRAP)



DESCRIPTION

Mine Resistant Ambush Protected (MRAP) vehicles are V-shaped hulled, raised chassis, armored vehicles with a blast resistant underbody designed to protect the crew from mine blasts, as well as fragmentary and direct fire weapons. MRAP vehicles will consist of three categories:

Category I vehicles support operations in an urban environment and other restricted/confined spaces; including mounted patrols, reconnaissance, communications, and command and control.

Category II vehicles provide a reconfigurable vehicle that is capable of supporting multi-mission operations such as convoy lead, troop transport, explosive ordnance disposal (EOD), ambulance, and combat engineering.

Category III vehicles provide Mine/Improvised Explosive Device (IED) clearance operations and explosive ordnance disposal.

OPERATIONAL IMPACT

MRAP vehicles will provide deployed commanders, various units, EOD and Combat Engineer teams with survivable ground mobility platforms. Marine units operating in Operation Iraqi Freedom/Operation Enduring Freedom require vehicles capable of surviving (IED) / mine, small arms fire, rocket propelled grenade and vehicle borne IED attacks. As Marines are expected to participate in and/or respond rapidly to a variety of offensive operations and stability and security operations without a large security contingent, they need a vehicle capable of functioning in a counter attack after surviving a "first blow" ambush or attack. Accordingly, operational experience dictates current and anticipated missions engaged in by all Marine Air Ground Task Force (MAGTF) levels in theater are better supported by a family of MRAP vehicles: multi-mission, troop transport, cargo, and ambulance

and EOD/Engineering mission. There is an immediate need for MRAP vehicles to increase survivability and mobility of Marines operating in a hazardous fire area against known threats.

PROGRAM STATUS

A sole source contract was awarded on 9 Nov 06 for 200 CAT II and up to 80 CAT III vehicles to bridge urgent war fighting needs while a competitive acquisition for the balance of CAT I and CAT II platforms was planned and executed. On 26 Jan 07, nine indefinite delivery indefinite quantity contracts were awarded to vendors that demonstrated capabilities to meet the program's overarching objective of producing the maximum number of survivable, safe, and sustainable MRAP vehicles in the shortest period of time. The Joint Program Office, lead by the Marine Corps, is currently evaluating examples of increasingly survivable and mission capable MRAP vehicles obtained via ECPs under existing contracts and the recently awarded MRAP II contract.

Procurement:
To date, 11,891 low rate initial production vehicles have been ordered for the Joint DoD community from the following manufacturers:

FPII – CAT I, CAT II, CAT III
IMG – CAT I, CAT II
BAE – CAT I, CAT II
AH – CAT I, CAT II
GDLS-C – CAT I, CAT II
OTC – CAT I

The Marine Corps requirement is 2023 (formerly 3700) MRAP Vehicles. The Program was schedule to have 650 MRAP vehicles delivered in-theater to MARCENT by the end of CY07. Actual USMC deliveries at the end of January 2008 are 819 vehicles. The entire MARCENT requirement is on schedule to be fielded in May 08 with the entire Marine Corps requirement completed by Aug 08.

Developer/Manufacturer:
Lockheed Martin Corporation, Syracuse, NY

JOINT LIGHT TACTICAL VEHICLE (JLTV)

DESCRIPTION

The Joint Light Tactical Vehicle (JLTV) capabilities represent a shift to adapt from a threat-based, Cold War garrison force focused on containment to a capabilities-based expeditionary force focused on flexibility, survivability, force protection, responsiveness, and agility. The JLTV Family of Vehicles must be capable of operating across a broad spectrum of terrain and weather conditions. The services and the Special Operations Command require enhanced capabilities, greater than those provided by the existing High Mobility Multipurpose Wheeled Vehicle to support the Joint Functional Concepts of Battlespace Awareness, Force Application, and Focused Logistics. To that end, the approved JLTV Initial Capability Document, and the JLTV Capability Development Document identify required capabilities for the next generation of JLTVs needed to support Joint Forces across the full range of military operations and provide a vital force enabler, multiplier and extender.

OPERATIONAL IMPACT

The initial production of JLTVs will provide the Marine Air Ground Task Force (MAGTF) commander a family of tactical wheeled vehicles capable of providing combat forces protected, sustained, and networked mobility in irregular warfare operations and enhancing the MAGTFs contribution to the integrated Joint Task Force.

PROGRAM STATUS

JLTV is a Joint Army/Marine Corps program with the U.S. Army designated as the lead service, Armaments Command establishing a Joint Program Office at the U.S. Army Tank Automotive & Armaments Command under the leadership of the Program Executive Office for Combat Support/Combat Service Support and a Program Office under the leadership of the Program Executive Officer for Land Systems, Marine Corps at Quantico, VA. The JLTV program expects a Milestone A (MS A) decision in early 2008, which will be followed by a Request for Proposal upon approval of MS A by the Defense Acquisition Executive. JLTV will proceed as a Joint Acquisition Category-1D Program with the Milestone Decision Authority being the Under Secretary of Defense for Acquisition, Technology, and Logistics.

Procurement Profile: FY2008
TBD

Developer/Manufacturer:
TBD

INTERNALLY TRANSPORTABLE VEHICLE (ITV)



DESCRIPTION

The Internally Transportable Vehicle (ITV) will be a highly mobile weapons capable light strike platform that can support a variety of operations. It will provide Marine Air-Ground Task Force (MAGTF) ground combat units with a vehicle transportable in CH-53E and MV-22 aircraft. It also will provide reconnaissance units equal or greater mobility than the MAGTF maneuver elements they support, thereby enhancing their mission performance and survivability.

OPERATIONAL IMPACT

The ITV will play a key role in Ship To Objective Maneuver and Distributed Operations in allowing MAGTF commanders to take maximum advantage of the speed and range offered by the MV-22 and CH-53E by deploying ground units equipped with highly mobile light-strike vehicles armed with heavy or medium machine guns. The Interim Fast Attack Vehicle (IFAV) is currently fielded and is deployable inside the CH-53E aircraft, but the Ground Combat Element currently has no ground mobility platform that can deploy inside the MV-22. ITV will replace the IFAV.

PROGRAM STATUS

The ITV Program is currently in production and deployment. A full rate production decision is planned for May 2008 and initial operational capability is planned for summer 2008, when one infantry battalion receives 15 ITVs.

Procurement Profile:	FY2008	FY2009
Quantity:	20	64

Developer/Manufacturer:
General Dynamics Ordnance and Tactical Systems with subcontractor American Growler, Robbins NC

MEDIUM TACTICAL VEHICLE REPLACEMENT (MTVR)

DESCRIPTION

The Medium Tactical Vehicle Replacement (MTVR) has replaced the aging medium truck fleet (M809/M939) series five-ton trucks with state-of-the-art commercial automotive technology. The MTVR has a payload of 7.1 tons off-road, 15 tons on-road, a high-performance suspension, traction control, new engine, central tire inflation system, automatic transmission, and corrosion technology upgrades. The MTVR Armor System (MAS) provides complete 360-degree protection as well as overhead and underbody protection for the crew compartment using Mil-A-46100 High Hard Steel and Metal Composite. The MAS is intended as a permanent modification to the vehicle, and includes an upgraded front suspension and cab rebuild. The kit includes an integrated air conditioning system and machine gun mount. The Cargo MAS kit includes an optional, removable Troop Carrier (with ballistic glass).

OPERATIONAL IMPACT

Over 1,030 MTVRs are currently being used in theater. The MTVR can readily negotiate terrain twice as rough as the five-ton truck. There are several variants of the basic MTVR platform for use with different functions to include a dump truck, wrecker, and tractor. The Dump and Wrecker variants maintain maximum commonality with the basic MTVR cargo chassis while performing their unique missions. The Marine Corps is procuring the Navy Seabee tractor variant to serve as the prime mover for the MK970 refuelers.

PROGRAM STATUS

The MTVR is in the production/deployment phase. The MTVR dump-and-tractor MAS Variants began fielding in December 2006. The Approved Acquisition Objective for MTVR increased to 7,710 & MAS to 5,140 as a result of a new USMC Tactical Wheeled Vehicle Armor Strategy and increase in USMC end-strength. Based on Urgent Universal Needs Statements, an MAS Blast Protection upgrade kit, including blast resistant cab seating, has been developed and is being retrofitted on all MTVR MAS vehicles in Operation Iraqi Freedom (OIF). Similarly, fuel tank fire protection kits are being installed in every MTVR in OIF. The USMC's objective is to retrofit all existing MAS MTVRs with the blast upgrade and fuel tank fire kits. These upgrades will be included in all future MAS orders.

Procurement Profile:	FY2008	FY2009
Quantity:	356	0

Developer/Manufacturer:
Oshkosh Truck Corporation, WI

HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) EGRESS ASSISTANCE TRAINER (HEAT)

DESCRIPTION

The High Mobility Multi-purpose Wheeled Vehicle (HMMWV) Egress Assistance Trainer (HEAT) trainer provides Marines the opportunity to experience vehicle roll-over conditions and rehearse and physically execute the steps necessary to survive a vehicle roll-over. Conducting this training under controlled conditions afford Marines the opportunity to gain experience of proper egress procedures, while reinforcing the importance of proper seatbelt/harness utilization, developing awareness of the necessary individual and crew skills needed to execute roll-over procedures, and training tactical perimeter security drills.

OPERATIONAL IMPACT

HEAT trainers support the Central Command requirement for all Marines to complete vehicle roll-over training prior to deploying to designated combat zones. HEAT training provides awareness of what causes a roll over and how to avoid and react to counter a potential roll over situation. HEAT training reinforces the importance of seatbelt usage and teaches teamwork when egressing.

PROGRAM STATUS

The HEAT project is currently undergoing a Product Improvement Initiative (increment #1) which will be complete in April 2008. HEAT trainers are currently located at Camp Lejeune, NC; Camp Pendleton, CA; MCB Kaneohe Bay, HI; Camp Hansen, Okinawa; and Mohave Viper, 29 Palms, CA.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
TBD

TRIAD OF GROUND FIRES

With the increased range and speed of the Expeditionary Fighting Vehicle and the MV-22 Osprey tilt rotor aircraft, the breadth and depth of the battlefield is increasing immensely. Consequently, the Marine Corps must have weapons systems with correspondingly greater range, lethality, and tactical mobility than those previously available. A triad of indirect fire-support programs is moving the Marine Corps in that direction.

The first element of the triad is the M777 Lightweight 155mm towed howitzer, which began replacing the current M-198 howitzer in 2005. The M777A1 is a joint Marine Corps-Army effort that will meet or exceed all the requirements of the current system, while reducing its weight from 16,000 to 9,800 pounds. The M777A1's maximum range is 15 miles using unassisted projectiles, or 18 miles using assisted projectiles.

The second element of the triad is the High Mobility Artillery Rocket System (HIMARS). The HIMARS delivers high volumes of long range rocket artillery in support of the ground scheme of maneuver. The HIMARS provides accurate, responsive, general support to reinforce fires at long range, under all weather conditions, and throughout all phases of combat operations ashore. Capable of firing the Multiple Launch Rocket System Family of Munitions, the HIMARS fires both precision and area munitions, and is capable of ranges exceeding 36 miles. The third system of the land-based fire support triad, the Expeditionary Fire Support System (EFSS), can accompany the Marine Air Ground Task Force (MAGTF) in any expeditionary mode of operations. It will be the primary indirect fires system for the vertical assault element of the ship-to-objective maneuver force. The EFSS will be internally transported by CH-53 helicopter or MV-22 tilt rotor to allow the greatest range and flexibility of employment. In addition to acquiring these primary fire support systems, the Marine Corps is developing other key adjuncts to the triad that will enhance the capabilities of the fire support platforms. These programs include sensors such as the Ground Weapons Locating Radar, Target Location Designation Handoff System, and Common Laser Range Finder. Additionally, the Improved Position Azimuth Determining System and development of a modeled, balloon-less meteorological measuring capability will improve location and weather data to ensure first round accuracy. For the M777A1, the Modular Artillery Charge System will reduce the number of propellant types used, and Multi-Option Fuze Artillery will reduce the number of fuses currently in the inventory.

Finally, acquisition of M795 155mm high explosive projectiles and variants will increase the lethality and range of munitions inventory. Ground-based, indirect fires are irreplaceable when forces are joined in close combat. Nothing else is as responsive to the commander's needs, or as reliable. They are not weather-dependent or facility-dependent. As such, they are key components of the reach and lethality of the MAGTF.

TACTICAL AIRCRAFT (TACAIR) INTEGRATION (TAI) / CAPABILITIES-BASED SCHEDULING (CBS)

The Tactical Aircraft (TacAir) Integration (TAI) plan will enhance core combat capabilities and result in a more potent, cohesive, and affordable fighting force. This integration is a culmination of a long-term effort to achieve greater combat capability with regard to Naval TacAir and represents a shared commitment to use the resources provided to the Department of the Navy (DoN) as judiciously as possible.

Integration efforts have been underway for several years. Since early 2004, five of the Marine Corps' eight F/A-18 A+/C Active Component Hornet squadrons have been operating from Navy aircraft carriers as part of their embarked carrier air wings. The first Navy F/A-18 squadron deployed to Marine Corps Air Station (MCAS) Iwakuni, Japan in support of the Unit Deployment Program in the fall of 2004. Key points of the TAI plan include:

- It retains Marine culture and reinforces an expeditionary ethos.
- It provides a smaller yet more capable and more affordable DoN TacAir force.
- It integrates Marine TacAir on Navy aircraft carriers. It integrates Navy TacAir into the Unit Deployment Program.
- It globally sources all DoN TacAir assets to ensure support to the Marine Air Ground Task Force (MAGTF).
- It provides increased combat capability in forward areas, in concert with the enhanced Seabasing concept.

A cornerstone of this plan is DoN funding and maintenance of legacy aircraft at the highest levels of readiness, until the Joint Strike Fighter (JSF) and F/A-18E/F replace them. This requires an unwavering commitment to a heightened strike-fighter readiness across the DoN. The readiness levels associated with this integration will allow the DoN to surge more aircraft than is within the current means.

To confront the challenges posed by the changing conduct of war and rapid evolution of technology, the Navy and Marine Corps will leverage their respective service's strengths to integrate when and where appropriate. Integration will produce a more effective and efficient naval force with improved warfighting capabilities. In June 2005, the Commandant of the Marine Corps and the Chief of Naval Operations approved Capabilities-Based Scheduling (CBS) as the TAI construct by which Navy and Marine Corps planners will fill all combatant commander operational requirements, as well as training requirements, with the most capable and cost-effective unit while still maintaining the long-range vision towards an interdependent force. CBS, coupled with new technology, service reorganization, and doctrine, will enable Naval Aviation to provide a unique, flexible, sea-based capability that will provide a greater range of options to the theater and Marine Air Ground Task Force (MAGTF) commanders. This co-evolution of technology, organizations, and concepts that surrounds TAI and the JSF will truly provide a transformational warfighting capability to land- and sea-based naval forces.

Naval Aviation will be fully integrated into task-organized Expeditionary Strike Groups and Carrier Strike Groups, en-

hancing the strategic agility, operational reach, and tactical flexibility of U.S. naval expeditionary forces. Navy and Marine Corps aircraft will operate from Sea Bases, optimized austere bases ashore, and right-sized expeditionary airfields with a new generation of lethal aircraft, providing naval and joint commanders with capabilities that were unattainable until now.

Integrated Naval TacAir, which will also possess significant low-observable strike capabilities embodied in the JSF, will be capable of delivering fires across the breadth and depth of the joint battlespace. Greatly improved strike options for the MAGTF and theater commanders will be achieved by integrating information from naval, joint, and national resources. Battlespace awareness will be measurably improved through the integration of networked forces and assets. Marine Corps and Navy forces will be seamlessly networked with pervasive intelligence, surveillance, and reconnaissance assets—including unmanned and autonomous sensors—covering the entire battlespace.

Current service doctrines and training have traditionally focused on the employment of air power at the tactical level (close air support) or the strategic level (long-range strike or interdiction). Now, MAGTF, joint force, or theater commanders can leverage Naval Aviation's distinctive characteristics at the operational level. Organizational and cultural change, coupled with new technology and innovative operating concepts, is fundamentally changing Naval Aviation and achieving exponential increases in its capabilities.

Naval air forces will take advantage of their reach, flexibility, sensors, and weapons to project power from both dispersed and networked sea- and land-bases through air-delivered fires and maneuver. This scalable and continually transforming force will provide the capabilities and flexibility required by U.S. joint force commanders, and will play a key part in achieving ultimate victory.

AIR NAVAL GUNFIRE LIAISON COMPANIES (ANGLICO)



Air Naval Gunfire Liaison Companies (ANGLICO) are made up of small unit teams that specialize in all aspects of fire support. Units range from terminal control firepower teams to division fire support coordination centers, the latter of which has intermediate battalion supporting-arms liaison teams and regimental/ brigade fire support coordination support.

ANGLICO units provide Marine Air Ground Task Force (MAGTF) commanders a liaison capability (with foreign area expertise) to plan, coordinate, employ, and conduct terminal control of fires in support of joint, allied, and coalition forces.

In 2002, the Commandant of the Marine Corps approved the reestablishment of ANGLICO, authorizing a company on each coast and a separate brigade platoon in Okinawa. In 2003, 1st ANGLICO was reestablished at Camp Pendleton, CA and 2d ANGLICO was reestablished at Camp Lejeune NC. 1st and 2d ANGLICO each have a company headquarters and two brigade platoons. 5th ANGLICO established an operational capability for a company headquarters and two brigade platoons in the III Marine Expeditionary Force in 2006. A third brigade platoon was stood up at 1st ANGLICO in 2007, with 2d and 5th ANGLICOs each to stand up a third brigade platoon in 2008.

NON-LETHAL WEAPONS (NLW)



Today's asymmetric battlefield has increased in complexity with the definitive lines between combatants and non-combatants becoming more ambiguous. This complex operating environment demands greater discrimination in the use of force by commanders. The Joint Non-Lethal Weapons Program (JNLWP) assists the services in providing the warfighter with a family of Non-Lethal Weapons (NLW) specifically designed to deliver precise non-lethal effects across the range of military operations.

The Commandant of the Marine Corps serves as DoD's executive agent for NLW, and through the JNLWP coordinates and integrates new technologies and systems directly to support service and combatant commanders' requirements.

Because NLW are highly discriminate and designed to achieve tailored target responses, they can avoid undesired effects. NLW capabilities assist warfighters in effectively managing escalation of force scenarios such as:

- Uncertain situations including target discrimination (resulting from adversaries seeking to blend into the surrounding population), the use of human shields, or co-location of adversary military capabilities with critical civilian infrastructure
- Collateral damage issues, where using traditional lethal weapons may affect our own force (force protection or freedom of action), non-combatants, or the infrastructure
- Perceptions and indirect effects that significantly affect future actions or support.

NLW provide incapacitating reversible effects that offer greater flexibility for service missions, and enhance our value as a versatile, adaptive joint force. In counter-insurgency operations the enemy may continue to use unconventional methods, such as human shields, in order to accomplish their objectives. Force commanders need the means to achieve desired effects while minimizing the loss of innocent life and limiting collateral damage. Non-lethal weapons provide less lethal options to our tactical decision-makers that prove extremely worthwhile in Escalation of Force (EOF) operations. Armed with NLW, the warfighter can elevate or decrement his response based upon the tactical environment and the mix of combatants with non-combatants. This fills the gap between "shout" and "shoot" for both force protection and force application missions.

Today's NLW technologies include a variety of blunt trauma munitions, optical warning distraction and incapacitation devices and mechanical vehicle arresting devices. Future technologies using cutting-edge directed energy technologies, such as the counter-personnel Active Denial System and counter-materiel vehicle and vessel stopping devices, will make precision engagement and controlled effects available to the commander. These systems are the next generation of NLW that give the warfighter greater choice of weaponry, range, and more time to make sound tactical decisions.

HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)



DESCRIPTION

The High Mobility Artillery Rocket System (HIMARS) is a C-130-transportable, wheeled, indirect-fire, rocket/missile system capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System Family of Munitions. The HIMARS launcher consists of a fire control system, carrier (automotive platform), and launcher-loader module that will perform all operations necessary to complete a fire mission. The system is defined as one launcher, two re-supply vehicles, two re-supply trailers, and munitions.

OPERATIONAL IMPACT

HIMARS addresses an identified, critical warfighting deficiency in Marine Corps fire support. HIMARS will primarily employ the Guided Multiple Launch Rocket System rocket to provide precision fires in support of maneuver forces. HIMARS is a transformational, 24 hour, ground-based, responsive, General Support/General Support-Reinforcing, precision, indirect fire weapon system which accurately engages targets at long ranges (60+ Km) with high volumes of lethal fire under all weather conditions throughout all phases of combat operations ashore.

HIMARS will be fielded to two battalions (one active and one Reserve) in the Marine Corps.

PROGRAM STATUS

HIMARS entered Full Rate Production in October 2005. A battery-sized interim capability was achieved in 1st Qtr fiscal year 2006 (Battery F, 2/14). Initial operational capability will be achieved in fiscal year 2008 and full operational capability will be achieved in fiscal year 2010.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:

- Launcher and MFOM: Lockheed Martin Corporation, Missiles & Fire Control Div., Dallas, TX
- Re-Supply System: Oshkosh Truck Corporation, Oshkosh, WI

LIGHTWEIGHT 155MM HOWITZER (LW155)

DESCRIPTION

The Lightweight 155mm Howitzer (LW155) is a joint Marine Corps/Army program to develop, produce and field a towed 155mm howitzer that provides increased mobility, survivability, deployability, and sustainability in expeditionary operations throughout the world. The LW155, designated the M777, is a direct and general support artillery system which is replacing the M198 155mm Medium Towed Howitzer in both Services. It has incorporated innovative design technologies to overcome deficiencies inherent in the current M198 howitzer. The LW155 is the first ground combat system whose major structures are made of high strength titanium alloy and the system makes extensive use of hydraulics to operate the breech, load tray, recoil and wheel arms. The combination of titanium structures and the use of hydraulic systems resulted in a significant weight savings over the M198 system (>7000 lbs.). Compared to the M198, the M777 emplaces three-times faster and displaces four-times faster. It traverses 32 percent more terrain worldwide and is 70 percent more survivable than the M198.

The M777A2 is an upgrade to the basic weapon that adds a digital fire-control system using a Global Positioning System, an Inertial Navigation Unit and a Vehicle Motion Sensor to accurately locate and orient the weapon to deliver greater accuracy, responsiveness and reliability. The system also integrates radios for voice and digital communications and a Chief of Section Display that is decoupled and mounted into the cab of the prime mover for use as a navigation aid. The M777 fires unassisted projectiles to a range of 15 miles and assisted projectiles to 19 miles, but the addition of the digital fire control system enables the weapon to program and fire the Excalibur precision-guided munition to ranges in excess of 25 miles with better than 10-meter Circular Error Probable (CEP) accuracy.

OPERATIONAL IMPACT

The LW 155(M777) is currently in-service with the USMC and U.S. Army and has been deployed to Operation Iraqi Freedom/Operation Enduring Freedom. The Canadian Army purchased the base M777 under a Foreign Military Sale (FMS) contract and is currently using the system in Afghanistan.

PROGRAM STATUS

The LW 155 program entered full-rate production in 2005. The Marine Corps is procuring 405 systems and the Army is buying 366.

Procurement Profile:	FY2008	FY2009
Quantity:	USMC=136	ARMY=280

Developer/Manufacturer:
BAE Systems, Barrow in Furness, UK

General Dynamics, ATP, Burlington, VT; Wegmann

USA, Lynchburg, VA; TSLA, Chatsworth,

CA; Watervliet Arsenal, Watervliet, NY

EXPEDITIONARY FIRE SUPPORT SYSTEM (EFSS)

DESCRIPTION

The Expeditionary Fire Support System (EFSS) will be the third and final system of a land-based fire support triad that includes the Lightweight 155mm Howitzer and High Mobility Artillery Rocket System. Accompanying Marine Air Ground Task Forces (MAGTFs) in all types of expeditionary operations, EFSS will be the primary indirect fire support system for the vertical assault element of the Ship To Objective Maneuver force. As such, the EFSS launcher, the mobility platform, a portion of the basic load of ammunition, and a portion of its crew will be internally transportable by a single CH-53E helicopter and/or a single MV-22 tilt rotor aircraft, and will possess the greatest possible range and flexibility of employment for operational maneuver from the sea.

OPERATIONAL IMPACT

EFSS will expand the maneuver commander's spectrum of fire support options and be capable of successfully engaging a spectrum of potential point and area targets, including motorized, light armored, and dismounted personnel, command and control systems, and indirect fire systems. EFSS will afford the MAGTF commander increased flexibility in tailoring his fire support systems to support the scheme of maneuver. EFSS-equipped units will be especially well-suited for missions requiring speed, tactical agility, and vertical transportability. The EFSS design and configuration will ensure that its tactical mobility, both in the air and on the ground, is equal to that of the force supported.

PROGRAM STATUS

The EFSS Program is currently in production and deployment. A full rate production decision is planned for May 2008 and initial operational capability is planned for summer 2008, when one artillery regiment receives six EFSS systems.

Procurement Profile:	FY2008	FY2009
Quantity:	7	23

Developer/Manufacturer:
GD-OTS with subcontractor TDA Armements (THALES Group), La Ferte-Saint Aubin, France

COMPANY AND BATTALION MORTARS

DESCRIPTION

The Company and Battalion Mortars program is a joint Marine Corps-U.S. Army initiative that seeks to lighten the overall weight of the systems through minor modifications of each of the three major components—cannon, bipod and baseplate. This will be achieved through the use of innovative materials and manufacturing processes. This will result in a weight reduction of approximately 12% for the company mortar and 30% for the battalion mortar system and introduce commonality of operation and parts with similarly designed bipods.

OPERATIONAL IMPACT

The improved company and battalion mortar systems will enhance the mobility of the individual mortarman and unit, while reducing the overall cost associated with procurement, training, and maintenance.

PROGRAM STATUS

The Company and Battalion Mortars program will award multiple production contracts in 1st-2nd Quarter (Qtr), fiscal year (FY) 2008 for all three major components of both systems. Initial Operational Capability is scheduled to be achieved in 3rd Qtr, fiscal year 2010 and Full Operational Capability is scheduled to be achieved in 3rd Qtr, fiscal year 2011.

Procurement Profile:	FY2008	FY2009
Company Quantity:	0	340
Battalion Quantity:	60	690

Developer/Manufacturer:
TBD

GROUND COUNTER FIRE SENSOR (GCFS)

DESCRIPTION

The Ground Counter Fire Sensor (GCFS) is a passive, autonomous acoustic system that will provide accurate points of origins of indirect fire systems, explosive detonations, and heavy direct fire weapons. The GCFS is a material solution augmenting currently fielded counter battery radar systems and is employed within Marine Artillery Regiments. The GCFS provides 360 degree, round-the clock coverage out to 20km for 155mm indirect fires. The GCFS incorporates 8 sensor posts and a command post via waveform communications and uses WGS84 datum and ellipsoid map references.

OPERATIONAL IMPACT

GCFS augments current counter battery radars by identifying the points of origin of improvised explosive devices (IED), rocket propelled grenades, and indirect fires that current sensors cannot detect. The GCFS allows the operating forces to counter enemy fires and react to IED detonations that otherwise would not be identified.

PROGRAM STATUS

The GCFS is a Marine Corps Abbreviated Acquisition Program in response to an Urgent Universal Need Statement. Initial operational capability was reached during fiscal year 2005 and full operational capability was reached in fiscal year 2006. The GCFS is undergoing engineering changes to evolve into an integrated and interoperable system. The GCFS program is in the process of becoming a program of record and is currently undergoing the staffing and approval of a formal CPD process. The Program Office is attempting to procure two additional systems as DFM, with fiscal year 2008 supplemental appropriation and has stood up an Integrated Program Team with the United Kingdom Royal Artillery and the Canadian Artillery to execute a common long term sustainment concept.

Procurement Profile:	FY2008	FY2009
Quantity:	10	0

Developer/Manufacturer:
SELEX Sensors and Airborne Systems Ltd, Basildon, UK

TARGET LOCATION, DESIGNATION AND HAND-OFF SYSTEM (TLDHS)

DESCRIPTION

The Target Location, Designation and Hand-off System (TLDHS) is a Joint Fires /Combined Arms tool. It is the first system within Department of Defense to be approved for fielding that allows observers to control Close Air Support (CAS), Artillery and Naval Gunfire missions on a single system using digital communications. TLDHS is a modular, man-portable equipment suite that provides the ability to quickly acquire targets in day, night, and near-all weather visibility conditions.

OPERATIONAL IMPACT

The system enables the user to perform target acquisition, coordinate refinement, and target hand-off to fire support agencies using existing and planned communications equipment. Operators are able to accurately determine and display their own location and the location of friendly forces as well as the location of targets and display fire support coordination measures. They are also able to digitally transmit (hand-off) this data to supporting arms elements and CAS aircraft, shortening mission response time and enhancing target location accuracy and friendly force deconfliction. Operators can designate targets for laser-seeking Precision Guided Munitions and Laser Spot Trackers or generate accurate coordinates for Global Positioning System weapons including Excalibur and Joint Direct Attack Munitions. The primary users of the system will be Forward Air Controllers (FACs), Forward Observers (FOs) for field artillery, Fire Power Control Teams (FCT) of the Air and Naval Gunfire Liaison Companies, Force Reconnaissance and Marine Corps Special Operations Command Marines as well as the supporting establishments responsible for the training of FOs, FACs, and FCT personnel.

PROGRAM STATUS

An evolutionary acquisition approach is used for the TLDHS program. Three block upgrades are planned during the program life cycle. Block I was focused exclusively on CAS with the AV- 8B Harrier and F/A-18 Hornet, and 137 systems were fielded in fiscal year 2004. Block II added the ability for FOs to conduct indirect fire missions including Naval Gunfire through Advanced Field Artillery Tactical Data System, and also added digital CAS communications with the Block 40 F-16. The Block II software also added a target coordinate refinement tool and the ability to view downlinked Rover III streaming video. Initial Operational Capability is planned for 1st Qtr fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	100	40

Developer/Manufacturer:
Prime Contractor and StrikeLink Software:
Stauder Technologies, Saint Peters, MO

Military Ruggedized Tablet:
DRS Technologies, Melbourne, FL

LASER TARGET DESIGNATOR (LTD)

DESCRIPTION

The Laser Target Designator (LTD) program is the single program responsible for satisfying current and future Marine Corps LTD requirements. The LTD program encompasses two sub systems, the Portable Laser Designator Rangefinder (PLDR) and the Laser Spot Imager (LSI) in order to achieve the designation requirements of the Target Location Designation Hand-off System. The PLDR is an electro-optical unit which provides joint terminal attack controllers with the capability to perform observation, identification and designation of targets. The external LSI provides day/night laser imaging capability in order to verify that the laser is designating the correct object as a target. LTD is currently acquiring the PLDR to field as the primary laser designator for use by Marine Corps forces. The PLDR laser beam is not visible to the naked eye or night vision goggles and has a designation range of 5,000 meters. PLDR includes a built-in laser spot camera which will eliminate the need to use the stand-alone LSI under certain daylight conditions.

OPERATIONAL IMPACT

LTD provides the operating forces with a capability to designate targets for both laser spot trackers and laser-seeking precision guided munitions in support of Joint Terminal Air Controllers, Reconnaissance Scouts and ANGLICO Scouts. PLDR is man-portable, and weighs less than previously fielded laser designators. Potential future upgrades include further weight reduction.

PROGRAM STATUS

LTD is acquiring PLDR as a non-developmental item, and is entering the acquisition process at Milestone C in 2nd Qtr fiscal year 2008. The target for initial operational capability is 2nd Qtr fiscal year 2008. The approved acquisition objective is 607 systems.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Kollsman, Inc., New Hampshire

CHAPTER 3
PART 4 AVIATION SUPPORT

INTRODUCTION

A key factor of the Marine Corps' ability to implement the new maritime strategy is the flexibility and combat power of Marine Aviation. Fixed- and rotary-wing aircraft organic to the Marine Air-Ground Task Force can shape and fight the battle, often in direct support of Individual Marines on the ground. Throughout the Marine Corps' history, this combined-arms team has proven unequalled across the spectrum of operations, from humanitarian assistance and disaster relief to delivering ordnance on target during crisis and conflict. Today, our priority is to replace legacy aircraft—some of which that have been flying since the Vietnam War. Introducing vastly more capable aircraft with highly trained and experienced Individual Marine Aviators and support personnel will ensure that the Corps maintains its warfighting advantage for our Nation in the years to come.

Marine Aviation continues to operate in a complex operational environment around the globe. Regardless of the multifaceted and dynamic threats we face, our mission remains unchanged-to be the MAGTF's aviation force in readiness. Our challenge during this time is to remain engaged operationally while executing our transition strategy to posture the force for the future. The Marine Aviation Transition Strategy is a phased, multi-year plan incorporating force structure changes to better balance the Active Duty and Reserve Component capacity while simultaneously providing critical Marine manpower increases to all flying squadrons and selected sections of the Marine Aircraft Group and Marine Aircraft Wing headquarters. Critical to this effort are the numerous transition task forces that are planning our transition from 13 types of legacy aircraft to seven new platforms. The complexities of our modernization plans become clearer upon review of our major programs. Our transition strategy can be separated into two mutually supportive efforts – sustain our legacy fleet and transition to new aircraft. Sustaining the legacy fleet includes upgrading the command and control systems as well as our Aviation Ground Support systems.

The following programs are the backbone of the ACE and lay the foundation for improved capabilities provided to us by our new aircraft and upgraded systems:

Aviation Combat Element (ACE) Legacy Aircraft Modernization

Aviation Ground Support

Theater Battle Management Core System

The Joint Interface Control Office Support System

Higher deployment tempo and corresponding increased difficulty in maintaining over used legacy systems demand that we transition to our new aircraft and systems on schedule. Our roadmap for navigating through this challenge is contained in the overarching Transition Strategy detailed in the Marine Aviation Plan. Our transition strategy as outlined in the AvPlan has become a keystone 'liv-

ing' document that outlines the multi-year transition plan and provides a ready reference for the fleet as well as the other services to understand the complexities and ultimate goals of our transition strategy. The collaborative efforts of Marine forces, HQMC, NAVAIR, and industry are largely responsible for the impressive achievements of many of our major programs over the past year.

- MV-22 Osprey Program
- Unmanned Aircraft Systems (UAS)
- KC-130J Super Hercules
- H-1 Upgrade Program (UH-1Y Huey / AH-1Z Cobra)
- Joint Strike Fighter (JSF) Transition Plan
- F-35B Short Take-Off Vertical Landing (STOVL) Joint Strike Fighter (JSF)
- CH-53K Heavy Lift Helicopter
- Operational Support Aircraft (OSA)

AVIATION COMBAT ELEMENT (ACE) LEGACY AIRCRAFT MODERNIZATION

The Marine Corps has several significant aviation modernization programs underway to restore and enhance the capabilities of its existing aircraft and systems. These modernization efforts are vital to the services' near- to mid-term combat capabilities.

CH-46E SEA KNIGHT

The CH-46E Sea Knight performs medium lift combat missions in the execution of the assault support function of Marine aviation. The CH-46E is fulfilling a critical role in Operation Iraqi Freedom. Sustainability, performance improvement, and payload recovery programs are essential to ensure the platform continues to meet Marine Air Ground Task Force (MAGTF) and joint war fighting requirements through the next ten years.

Because the CH-46E continues to play a vital role in support of the Global War on Terror, Aircraft Survivability Equipment Systems are being upgraded, including the missile warning system, countermeasures dispensing system, and infrared missile jamming system to mitigate enemy threats. Numerous weight reduction initiatives have been commenced which are targeting 1000 pounds of payload recovery. Lightweight ceramic armor has been procured to replace the original steel armor. CH-46E readiness and utilization rates are at historic highs and the efforts underway will help it safely and effectively perform the mission until retirement.

CH-53E SUPER STALLION

The CH-53E Super Stallion is a three-engine, long-range, heavy-lift helicopter that has been key to the assault support function of Marine Aviation, but the CH-53E cannot support the range and payload requirements necessary to the Marine Corps future war-fighting concepts as currently envisioned. The current fleet of aircraft will reach the end of its fatigue life during this decade, and a sustainment strategy has been implemented to address critical fatigue, obsolescence, and reliability issues, until the aircraft can be replaced. A comprehensive re-design of the Marine Corps heavy lift platform, focusing on reliability, maintainability, cost of ownership, and performance, is required to effectively meet MAGTF and joint war fighting requirements over the next 25 years. The CH-53K program, formerly known as the Heavy Lift Replacement Program (HLR), is the solution to maintaining a heavy-lift capability beyond the year 2025. The CH-53K is a derivative design of the existing CH-53E, remaining within the same shipboard footprint, and is critical to properly and cost-effectively supporting sea-based Expeditionary Maneuver Warfare (EMW) for the Marine Corps in the 21st century. The CH-53K will provide the Marine Corps with the ability to transport 27,000 lbs of cargo out to 110 nautical miles (NM), providing twice the lift capability of the CH-53E under the same conditions. Major system improvements of the new build helicopter include: larger and more capable engines, an expanded gross weight airframe, an

enhanced drive train, advanced composite rotor blades, a modern interoperable cockpit, improved external and internal cargo handling systems, and increased survivability and force protection.

AV-8B HARRIER

The AV-8B Harrier Open Systems Core Avionics Requirement (OSCAR), which updates obsolete software and computer equipment, has entered service. OSCAR with Operational Flight Program H4.0 enables the AV-8B to employ both 1,000 and 500 lbs variants of the Joint Direct Attack Munitions and provides tremendous improvements in radar and LITENING advanced targeting pod capability.

The LITENING advanced targeting pod significantly improves the AV-8B's lethality and survivability. This third-generation, forward-looking infrared set, dual field-of-view television seeker, and infrared marker provides improved target recognition and identification, while the laser designator and laser spot tracker provide precision targeting capability. Some LITENING pods have also been equipped with a C-band video downlink, which allows real-time video to be sent to ground-based commanders and forward air controllers equipped with the Rover III receiver station. This facilitates time-sensitive targeting and reduces the risk of fratricide and collateral damage.

In order to maintain a world-class training environment, the two-seat TAV-8B trainers are undergoing an upgrade program that adds the OSCAR mission computer, night vision goggle-compatible lighting, and the more powerful and reliable Rolls Royce Pegasus (408) engine. These improvements are increasing the training capability of the AV-8B fleet replacement squadron, as well as the abilities of replacement pilots reporting to fleet squadrons. The enhancements to the Harrier are critical in providing continued support to the MAGTF until the tactical aviation (TacAir) Integration implementation and Joint Strike Fighter (JSF) transition are complete.

F/A-18 HORNET

The F/A-18A+ Upgrade (Engineering Change Proposal 583) consists primarily of avionics and hardware upgrades that allow the F/A-18A+ Hornet to process and use updated versions of F/A-18C software and accessories. A large portion of this modification enhances commonality between the "A+" and "C" aircraft, reducing logistics footprint, and pilot and maintenance training requirements, as well as mitigating obsolescence issues. The modified "A+" aircraft is compatible with a Lot XVII F/A-18C aircraft, an aircraft eight years younger. This upgrade also enables the "A+" aircraft to employ all current and programmed future weapons.

Fifty-six aircraft are scheduled to receive the upgrade, enabling the upgraded "A" model aircraft to remain active through 2020. These additional, relevant F/A-18 airframes are instrumental in

supporting the Navy-Marine Corps TacAir Integration plan.

The F/A-18D Advanced Tactical Airborne Reconnaissance System (ATARS) provides manned airborne tactical reconnaissance capability to the MAGTF. ATARS incorporates multiple sensor capabilities including electro-optical, infrared, and synthetic aperture radar. ATARS-equipped aircraft carry all sensor capabilities simultaneously, enabling imagery that is selectable by the aircrew in flight. Another significant capability of ATARS is its ability to transmit digitally collected data in near-real time to ground receiving stations. This imagery can be data-linked to various intelligence systems for national exploitation via the Tactical Exploitation Group. Twenty-two ATARS sensor suites and 31 ATARS modified aircraft are now operational in all five Marine Corps F/A-18D squadrons.

The LITENING advanced targeting pod provides the F/A-18 with a significant improvement in its lethality and survivability. LITENING is the Marine Corps third generation capability for its expeditionary aircraft. This forward-looking infrared sensor, dual field-of-view television seeker, and infrared marker, provides improved target recognition and identification, while the laser designator and laser spot tracker provide precision targeting capability. All F/A-18 and AV-8B supporting the Global War On Terror deploy with LITENING pods equipped with a video downlink.

Based upon the LITENING pod's proven combat value during recent operations, the Marine Corps has modified expeditionary F/A-18 aircraft to carry the LITENING pod. It is a proven capability that better enables Marine Aviation to support the MAGTF and Joint Force commanders.

KC-130 HERCULES

All of the legacy KC-130 aircraft will be replaced with KC-130Js which will culminate in one Type/Model/Series tactical aerial refueler/assault support aircraft for the Marine Corps.

EA-6B PROWLER

EA-6B upgrades maintain Marine Prowlers as an essential combat-proven element of the MAGTF and the joint force. The cornerstone of the modification and upgrade plan is the Improved Capabilities III (ICAP III) weapon system for both Marine and Navy EA-6B squadrons. The core of ICAP III is the ALQ-218 digital receiver system. This is the first receiver upgrade to the EA-6B since its fleet introduction more than 30 years ago. The improved receivers will enable more precise jamming, while also improving aircrew situational awareness and reducing life cycle costs.

ICAP III attained initial operational capability for the Navy in fiscal year 2005. The EA-6B's successful re-winging and upgrades will also be critical to maintaining the airframe's viability through 2016.

AVIATION GROUND SUPPORT

The Marine Wing Support Group (MWSG) provides the functional support necessary to enable Marine Aviation operations in an expeditionary environment; these capabilities are also relevant to the Joint Force Commander on the battlefield where forward basing and rapid aviation support may be required. Aviation Ground Support (AGS) is scalable and sustainable, but must continue to modernize to support current and future Air Combat Element (ACE) expeditionary operations. The MWSG and Marine Wing Support Squadrons (MWSS) are undergoing several equipment and structure refinements to enhance the ability to rapidly plan, deploy, and provide AGS to the ACE Commanders training and wartime requirements. Additionally, the MWSGs and MWSSs seek to integrate improvements in logistics processes and information technologies as part of the current Logistics Modernization (LOGMOD) initiatives.

MARINE WING SUPPORT SQUADRON MIRROR IMAGING

Continuous refinement of the MWSS "mirror imaged" structure will continue to ensure that the squadrons can provide flexible and responsive direct support AGS to the ACE. All active duty MWSSs were mirror imaged in fiscal year 2006, eliminating the inherent constraints of employing separate rotary wing and fixed wing squadrons. The MWSS is now capable of providing flexible AGS to any composite Marine Aircraft Group to include joint and coalition aircraft. Future MWSS mirror imaging refinements look to influence standardization of air-operations personnel (Expeditionary Airfields (EAF), Airfield Rescue and Firefighting (ARFF), Fuels, Explosive Ordnance Disposal, Weather) structure at Marine Corps Air Stations and Facilities.

Future structure refinements will incorporate changes based on the MAGTF Military Police reorganization plan. These changes will ensure that the ACE is capable of organic force protection, secure movement, law enforcement, and integration with other elements of the MAGTF for the defense of the airfield, Forward Area Refueling Points, and base camps. A review of MWSS equipment during the 2007 Marine Corps wide Table of Equipment review focused on structuring the MWSS to support future MAGTF and ACE warfighting concepts well into the 21st century. The fielding of new equipment and new concepts further enhance the MWSSs capability to conduct route clearance and reconnaissance, and support the migration of tactical radio assets under the Tactical Communications Modernization (TCM) Plan. The focus of the current and future MWSS table of equipment review will be to shape the Squadron to support emerging Marine Aviation technologies, systems, and concepts.

EAF/ARFF MODERNIZATION

The AGS modernization initiative will ensure that the MWSS is capable of supporting the ACE during Expedition-

ary Maneuver Warfare. The intent of the EAF/ARFF modernization initiative is to provide a more rapidly deployable, maneuverable, and responsive expeditionary airfield capability that supports advanced Aviation technologies such as the MV-22 Osprey and Joint Strike Fighter.

EAF/ARFF Modernization programs include:

- Advanced light weight matting capable of supporting Joint Strike Fighter operations.
- Man portable, all weather airfield lighting systems
- Rapidly deployable, self contained, airfield damage repair systems.
- Modernized, lightweight, all terrain firefighting vehicles.

METEOROLOGICAL MOBILE FACILITY REPLACEMENT – NEXT GENERATION

The next generation Meteorological Mobile Facility Replacement will provide networked meteorological capability throughout the area of operations through a self mobile, High Mobility Multi-Wheeled Vehicle (HMMWV)- mounted facility capable of providing real time weather data in support of the ACE during expeditionary operations.

REGIONAL METEOROLOGICAL CENTERS (RMC)

The Regional Meteorological Centers (RMC) will be operational in fiscal year 2008 and provides consolidated hubs on each coast (Cherry Point, NC and Miramar, CA) to distribute meteorological forecast, weather alerts, and tactical weather products to Marine Corps Air Stations and Facilities in the Continental U.S. The RMC also serves as a training center for meteorological center

(METOC) personnel and ensures that entry-level METOC personnel are adequately trained to provide support to the ACE during expeditionary operations.

THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS)

DESCRIPTION

Theater Battle Management Core System (TBMCS) is an air war planning tool mandated by the Chairman, Joint Chiefs of Staff for the generation, dissemination, and execution of the Air Tasking Order/Airspace Control Order (ATO/ACO). The host system resides with the Aviation Command Element in the Tactical Air Command Center (TACC) with remote systems located throughout the Marine Air Ground Task Force to allow dynamic mission updates.

OPERATIONAL IMPACT

TBMCS is the principal aviation command-and-control tool within the Marine Air Command and Control Systems and the Theater Air Ground System for the development and execution of the ATO. It is a key system that supports ATO planning and development, and provides the automated tools necessary to generate, disseminate, and execute the ATO/ACO in joint, coalition, and USMC only contingencies.

PROGRAM STATUS

TBMCS version 1.1.3 is now fielded throughout the Operating Forces and the joint community. Discussions between Joint, Marine Corps, and other Services representatives are being held to develop a way ahead for sustainment of version 1.1.3 and the eventual transition to a new system in the future.

THE JOINT INTERFACE CONTROL OFFICE (JICO) SUPPORT SYSTEM (JSS)

DESCRIPTION

The Joint Interface Control Office (JICO) Support System (JSS) is an ACAT III Joint Requirements Oversight Counsel mandated, Air Force led program. The JSS will consist of a baseline of common modular hardware, software, computer operating system, documentation, training, and both local and remote JICO Data Repositories. The system will produce the Operational Tasking Link and its associated Network Design Files. Once the Multi-Tactical Data Link (TDL) Network (MTN) is planned, designed, and established the operators will use the system to monitor network connectivity, manage the air picture, and change the MTN to meet the operational objectives. JSS will be located with those operational facilities (OPFAC) in which the responsible service believes it will most likely be called upon to execute the JICO, Regional Interface Control Officer, and Sector Interface Control Officer roles. For Marine Corps operations, these OPFACs will be the Tactical Air Command Center or the Tactical Air Operations Center.

OPERATIONAL IMPACT

The system is designed to overcome decades of known interoperability issues associated with the TDL-MTN operations and to provide tools for Interface Control Officers to plan, design, establish, and manage the MTN. Once fielded the system will greatly increase MTN interoperability and reduce incidence of fratricide associated with Air Command and Control combat operations. The system concept is outlined in CJCSM 3115.01A Joint Data Network Operations Manual and CJCSM 6120.01D Joint Multi-TDL Operations Procedures.

PROGRAM STATUS

The engineering design models have been delivered and tested. The production critical design review was successfully conducted during second quarter of fiscal year 2007. Initial Operations Capability is scheduled for fourth quarter fiscal year 2010

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Northrop Grumman Mission Systems, San Diego, CA

USMC Integrator: Naval Surface Warfare Center, Crane IN

F-35B SHORT TAKE-OFF VERTICAL LANDING (STOVL) JOINT STRIKE FIGHTER (JSF)



DESCRIPTION

The F-35B Short Take-Off Vertical Landing (STOVL) Joint Strike Fighter (JSF) is a single engine, stealthy, supersonic, strike-fighter aircraft capable of short take-offs and vertical landings. JSF will combine the basing flexibility of the AV-8B with the multi-role capabilities, speed, and maneuverability of the F/A-18 to fulfill both the air-to-ground and air-to-air requirements of the Marine Corps. The aircraft will have very low radar cross-section and provide superior capabilities over legacy aircraft in the areas of survivability, lethality, and supportability. The F-35 will replace the Marine Corps' AV-8B and F/A-18A/C/D fleets, affirming a tremendous growth potential as the JSF matures into the premier next-generation weapons system.

OPERATIONAL IMPACT

The STOVL JSF provides a multi-mission offensive air support and an offensive/ defensive anti-air capability. The STOVL JSF also provides the Marine Air Ground Task Force (MAGTF) with a platform capable of tactical air control and tactical reconnaissance. Additionally, the aircraft will be able to provide destruction of enemy air defenses. The requirements for this aircraft are focused on readiness, the combined arms concept, and expeditionary capability and the ability to conduct Expeditionary Maneuver Warfare.

PROGRAM STATUS

The JSF is a joint program with the Air Force, Navy, Marine Corps, and the United Kingdom as Level I partners. Participating as Level II partners are Italy and The Netherlands; Level III partners are Canada, Denmark, Norway, Turkey, and Australia. After reassessing the program baseline, the Systems Development and Demonstration phase is scheduled to last until 2013. The SDD phase will include the certification of various precision engagement capabilities, as well as cutting- edge sensor fusion that will directly support the MAGTF commander. Since completing the critical design review, the prime contractor has begun preparing the long lead items needed for Low Rate Initial Production scheduled for 2007. STOVL first flight is scheduled for third quarter 2008, with follow on Initial Operational Capability in 2012.

Procurement Profile:	FY2008	FY2009
Quantity:	6	8

Developer/Manufacturer:
Air Vehicle: Lockheed Martin, Northrop Grumman, and British Aerospace
Engineering Propulsion:
Pratt & Whitney and General Electric

JOINT STRIKE FIGHTER (JSF) TRANSITION PLAN

The Joint Strike Fighter (JSF) will be the next generation strike-fighter for the U.S. Marine Corps, Air Force, and Navy. The JSF family of aircraft includes the short take off, vertical landing (STOVL) variant for the Marine Corps, conventional takeoff and landing (CTOL) for the Air Force and aircraft carrier-capable (CV) variant for the Navy. Commonality between the variants helps reduce both development and lifecycle costs, and will result in the greatest "bang for the buck" when compared to developing three separate aircraft. The JSF will replace the AV-8B and F/A-18A/C/D in the Marine Corps, the F-16C and A-10 in the Air Force, and the F/A-18C in the Navy.

The F-35 will incorporate advanced mission systems, including the Active Electronically Scanned Array (AESA) radar, Electro-Optical Targeting System (EOTS), and Distributed Aperture System (DAS). AESA, EOTS, and DAS information will be incorporated into a pilot's helmet-mounted display system, negating the need for a traditional heads-up display in the cockpit.

The Marine Corps' F-35B will be capable of operating from Carrier and Expeditionary Strike Groups, main operating bases, and austere sites ashore. The STOVL F-35B JSF will provide the Marine Corps with a low observable, state-of-the-art, high performance, multi-role offensive aircraft. The JSF Operational Requirements Document stipulates that the F-35B will have a 450-nautical mile combat radius when employed from a ship and be capable of 550-foot short takeoffs with a full internal payload (two 1,000-pound class weapons and two air-to-air missiles) on those ship launched missions. The United Kingdom's Royal Air Force, Royal Navy, and the Italian Navy will also use the STOVL variant. Several Foreign Military Sales (FMS) countries have also expressed interest in the F-35B.

The Corps will employ the F-35B to execute five of the six functions that Marine Corps aviation performs. This remarkable breadth of employment will allow the Marine Corps to decrease its tactical aviation (TacAir) inventory, while increasing lethality, survivability, and supportability when compared to legacy aircraft. The Marine Aviation procurement requirement for STOVL F-35B JSF is 420 aircraft. This quantity reflects a reduction of 189 aircraft from the program of record and includes deactivations, reduced Primary Aircraft Authorized, and reduced overhead percentages, as a result of the Department of the Navy's TacAir Integration Plan.

The current JSF acquisition strategy continues to reflect the Marine Corps' vision of an "all-STOVL" force. In accordance with a Memorandum of Understanding of August 2002 between the Secretary of the Navy, Commandant of the Marine Corps, and the Chief of Naval Operations, the Marine Corps' strategy will be maintained until a fair and equitable analysis of the CV and STOVL variants can be conducted.

Once the F-35B begins entering service, the Marine Corps will begin retire-

ment of AV-8Bs and F/A-18 Hornets. All legacy strike TacAir platforms should be retired by 2024. As the TacAir integration plan progresses, the Corps will explore the feasibility of incorporating an airborne electronic attack capability into the baseline F-35 to address the eventual retirement of EA-6B Prowlers.

The STOVL F-35B JSF is absolutely critical to the success of the Marine Corps, as it will solve the significant problems of age and attrition currently facing Marine TacAir. The combination of stealth, basing flexibility, and superior performance will revolutionize air warfare and Naval Aviation in the 21st Century.

MV-22 OSPREY

DESCRIPTION

The MV-22 Osprey tiltrotor is an advanced-technology Vertical/Short Takeoff and Landing (V/STOL), multi-purpose tactical aircraft that will replace the current fleet of Vietnam-era CH-46E aircraft. The MV-22 will join the Expeditionary Fighting Vehicle and Landing Craft Air Cushion as an integral part of the Seabasing pillars necessary to execute Expeditionary Maneuver Warfare. Specific missions include expeditionary assault from land or sea, raid operations, medium cargo lift, tactical recovery of aircraft and personnel, fleet logistics support, and special warfare. The MV-22's design incorporates the sophisticated, but mature, technologies of composite materials, fly-by-wire flight controls, digital cockpits, airfoil design, and advanced manufacturing processes. The MV-22 Osprey has a 350 nautical mile (NM) combat radius, cruises at 255 knots and is capable of carrying 24 combat-equipped Marines or a 10,000 pound external load. With a 2,100 NM, single aerial refueling range, the aircraft also as a strategic self-deployment capability. The MV-22's prop-rotor system, engine, and transmissions (collectively referred to as the nacelle) are mounted on each wing tip and allow it to operate as a helicopter for takeoff and landing. Once airborne, the nacelles rotate forward 90 degrees, transitioning the MV-22 into a high-speed, high-altitude, fuel-efficient, turbo-prop aircraft. The MV-22 is a multi-mission aircraft designed for use by all the services. The Marine Corps, Navy, and Air Force are committed to the fielding of this unique aircraft.

OPERATIONAL IMPACT

The MV-22 will be the cornerstone of Marine Corps' assault support capability, possessing the speed, endurance, and survivability needed to fight and win on tomorrow's battlefield. This combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for expeditionary and Maritime Prepositioning Forces.

PROGRAM STATUS

Initial Operational Capability for the MV-22 was declared in June, 2007. The MV-22 is currently deployed and in direct support of Marine Air Ground Task Force combat operations. Production of the MV-22 continues to be based on a block production strategy, which is designed to provide continual life-cycle and capability improvements over the life of the platform. Block A series aircraft are designed to serve as non-deployable, training aircraft only and include software enhancements, a nacelle reconfiguration, and additional reliability and maintainability improvements over the original aircraft design. To date, 29 Block A aircraft have been delivered and are in service at Marine Corps Air Station New River. Block B series aircraft are the deployable configuration of the MV-22 Osprey. These aircraft provide improvements in effectiveness and maintainability for operators and maintainers, including improved access to the nacelle for inspection purposes as well as substantial reliability and maintenance improvements across the

entire platform. As of 1 November 2007, 25 Block B aircraft have been delivered to the fleet. Block C series aircraft incorporate mission enhancements and increase operational capability. Enhancements include the addition of weather radar, a forward-firing ALE-47 dispenser, improved hover coupled features, an improved environmental conditioning system, and a troop commander situational awareness station. The first Block C aircraft is projected to be delivered to the fleet in fiscal year 2012.

Procurement Profile:		
(Block B):	FY2008	FY2009
Quantity:	21	30

Developer/Manufacturer:
Bell Helicopter Textron, Fort Worth, TX
The Boeing Company, Philadelphia, PA

H-1 UPGRADE (UH-1Y HUEY/AH-1Z COBRA)



DESCRIPTION

The H-1 Upgrade (UH-1Y/AH-1Z) replaces the current two-bladed rotor system on the UH-1N and AH-1W aircraft with a new four-bladed, all-composite rotor system that is coupled with a sophisticated, fully integrated, state-of-the-art cockpit. The UH-1Y and AH-1Z also incorporate a new performance matched transmission, a four-bladed tail rotor and drive system, and upgraded landing gear. Additionally, structural modifications to the AH-1Z provide the aircraft with six weapons stations-two more than the AH-1W. The advanced cockpit, common to both aircraft, reduces operator work-load, improves situational awareness, and provides growth potential for future weapons and joint interoperability. The cockpit integrates on-board planning, communications, digital fire control, self-contained navigation, night targeting, and weapons systems in mirror-imaged crew stations. The UH-1Y and AH-1Z are approximately 84 percent common throughout, which significantly benefits Marine Air Ground Task Force supportability. Developmental testing of the UH-Y and AH-1Z has demonstrated a marked increase in aircraft agility, maximum continuous speed, and payload.

OPERATIONAL IMPACT

The H-1 Upgrade Program is designed to resolve existing safety deficiencies, significantly improve operational capabilities, and reduce life-cycle costs. Commonality between aircraft will greatly enhance the maintainability and deployability of the systems with the capability to support and operate both aircraft within the same squadron structure.

PROGRAM STATUS

The H-1 Upgrade Program is in the operational test phase, which will verify the effectiveness and suitability of these aircraft for the warfighter. The total program objective is 100 UH-1Ys and 180 AH-1Zs.

Procurement Profile:	FY2008	FY2009
Quantity:	15	20

Developer/Manufacturer:
Bell Helicopter Textron Inc., Fort Worth, TX

Integrated Cockpit: Northrop Grumman, Woodland Hills, CA

AH-1Z Target Sight System: Lockheed Martin, Orlando, FL

KC-130 HERCULES

DESCRIPTION

The KC-130 is a versatile four-engine, tactical aerial refueler/assault support aircraft. It is the only long-range, fixed-wing, assault-support capability organic to the Marine Corps. The KC-130J, with its increase in speed (+20 percent) and range (+35 percent) over legacy aircraft, features an improved air-to-air refueling system and a state-of-the-art flight station. A Rolls Royce AE 2100D3 propulsion system, Dowty R391 advanced technology six-bladed propeller system, and a 250-knot cargo ramp and door, complete the package, which provides the Marine Air Ground Task Force (MAGTF) commander with a state-of-the-art, multi-mission, tactical aerial-refueler/assault- support transport asset well into the 21st century. The Marine Corps is currently replacing its aging active fleet of KC-130Fs and KC-130Rs and in the future, its reserve KC-130Ts with the new KC-130J.

OPERATIONAL IMPACT

The KC-130J provides the following capabilities: tactical in-flight refueling for fixed-wing, rotary-wing, and tilt-rotor aircraft; rapid ground refueling of aircraft or tactical vehicles; assault air transport of air landed or aerial delivered personnel and equipment; airborne command and control augmentation; pathfinder; battlefield illumination; tactical aero-medical evacuation; and, Tactical Recovery of Aircraft and Personnel support. This force multiplier is well suited to the mission needs of the forward-deployed MAGTF. The KC-130J will bring increased capability and mission flexibility to combat planning with its satellite communications system capability, survivability enhancements, aerial refueling and rapid ground refueling capabilities, and improved aircraft systems reliability.

PROGRAM STATUS

The Marine Corps requirement is 79 aircraft. The KC-130J is procured as a commercial-off-the-shelf aircraft currently in production. Current programming brings the total number of KC-130J aircraft to 46. Initial Operational Capability was achieved in 2005.

Procurement Profile:	FY2008	FY2009
Quantity:	4	2

Developer/Manufacturer:
Lockheed Martin Aeronautics Company

CH-53K HEAVY LIFT HELICOPTER



DESCRIPTION

The CH-53E Super Stallion is a three-engine, long-range, heavy-lift helicopter that has been key to the assault support function of Marine Aviation, but the CH-53E cannot support the range and payload requirements necessary to the Marine Corps future war-fighting concepts as currently envisioned. The current fleet of aircraft will reach the end of its fatigue life during this decade, and a sustainment strategy has been implemented to address critical fatigue, obsolescence, and reliability issues, until the aircraft can be replaced. A comprehensive re-design of the Marine Corps heavy lift platform, focusing on reliability, maintainability, cost of ownership, and performance, is required to effectively meet Marine Air Ground Task Force (MAGTF) and joint war fighting requirements over the next 25 years. The CH-53K program, formerly known as the Heavy Lift Replacement Program, is the solution to maintaining a heavy-lift capability beyond the year 2025. The CH-53K is a derivative design of the existing CH-53E, remaining within the same shipboard footprint, and is critical to properly and cost-effectively supporting sea-based Expeditionary Maneuver Warfare (EMW) for the Marine Corps in the 21st century. The CH-53K will provide the Marine Corps with the ability to transport 27,000 LBS of cargo out to 110 nautical miles, providing twice the lift capability of the CH-53E under the same conditions. Major system improvements of the new build helicopter include: larger and more capable engines, an expanded gross weight airframe, an enhanced drive train, advanced composite rotor blades, a modern interoperable cockpit, improved external and internal cargo handling systems, and increased survivability and force protection.

OPERATIONAL IMPACT

Maintainability and reliability enhancements of the CH-53K will significantly decrease recurring operating costs and radically improve capability over the current CH-53E, which is estimated to exceed $27,000 cost per flight hour in 2015. The CH-53K will vastly improve the ability of the MAGTF and Joint Task Force to project and sustain forces ashore from a sea-based center of operations in support of EMW, Ship to Objective Maneuver, and Distributed Operations. The performance improvements will enable the vertical insertion of two combat

loaded Up-Armored High Mobility Multipurpose Wheeled Vehicles, one Light Armored Vehicle, or three 9,000-lb sustainment loads to three separate landing zones. The reliability, maintainability, and cost of ownership improvements will allow all of this to happen more efficiently and at a lower cost.

PROGRAM STATUS

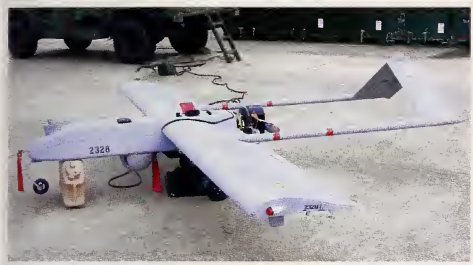
The operational requirements document completed joint staffing and was signed in 2004. The program achieved Milestone B in Dec 2005, and the System Development and Demonstration contract was award in Apr 2006. Initial operational capability will occur in 2015.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
CH-53E: Sikorsky Aircraft Corporation, Stratford, CT

CH-53K: Sikorsky Aircraft Corporation, Stratford, CT

UNMANNED AIRCRAFT SYSTEMS (UAS)



The Marine Corps has employed unmanned aerial vehicles (UAVs) since 1986 to provide near real-time reconnaissance, surveillance, and intelligence to tactical commanders. The demand for Intelligence, Surveillance, and Reconnaissance support continues to grow, and clearly highlights the increased need for Unmanned Aircraft Systems (UAS) in the Marine Corps. To fulfill this need, the Marine Unmanned Aerial Vehicle Squadron (VMU) has begun an organizational transformation that will lead to a flexible, scaleable, detachment based squadron. This reorganization is based around the Army One Ground Control Station (GCS), envisioned as the common GCS for all tiers of Marine Corps UAS Family of Systems (FoS) and all current Army UAS.

The Marine Corps's UAS concept of employment is divided into three tiers, each coinciding with the echelon of command they support. The Marine Corps Combat Development Command (MCCDC) has completed the Marine Corps UAS Family of Systems concept of operations and the USMC overarching capabilities study which will refine the requirements for the USMC Family of UAS Systems.

The Marine Corps' Tier I UAS, Dragon Eye, is being flown at the Battalion level and below with great success in Operation Iraqi Freedom and Operation Enduring Freedom. The Dragon Eye UAS achieved Initial Operational Capability (IOC) in June 2004. The Marine Corps is currently transitioning from Dragon Eye to the Joint Small UAS, Raven-B, which has been selected by the Army and the U.S. Special Operations Command. There are currently 270 Dragon Eye in the inventory with plans to procure 323 Raven-B systems which will replace Dragon Eye systems.

The Marine Division, Regiment, Battalion and Marine Expeditionary Unit (MEU) commanders will be supported by the Tier II UAS. The Marine Corps oversees six Scan Eagle UAS systems under a fee-for-service agreement to fill this identified capability gap. The current sole-source contract will continue to provide this capability through 2010 while a full program of record is developed. The Joint sponsored Tier II UAS program Initial Capabilities Document (ICD) was approved by the Joint Requirement Oversight Council in Dec 06. The program of record has a planned IOC in 2011.

The Marine Corps' Tier III UAS serves the Joint Task Force (JTF)/Marine Air Ground Task Force (MAGTF) commander. The Marine Corps recently retired the RQ-2B Pioneer and transitioned to the RQ-7B Shadow as the Marine Corps' Tier III UAS. The Marine Corps introduced Pioneer in 1986 as an interim UAV system that would be replaced within 10 years. Since then, it has served with distinction from Desert Storm through its current duties in OIF.

The Marine Corps transitioned to the Shadow system during the fourth quar-

ter of fiscal year 2007 and deployed the Shadow-capable VMU to support current OIF operations in September 07. In OIF, Pioneers and Shadows have provided the intelligence necessary to make the difference between success and failure. Using electro-optical and infrared cameras, electronic warfare capabilities and communications relay payloads, ground units have visual access to their areas of responsibility and routes, and force protection enhancers available to them prior to the first Marine crossing the line of departure. By fiscal year 2009, the Marine Corps will increase the number of Shadow systems in each VMU from one to three, and reorganize the squadron's manpower into three detachments, essentially tripling the capability of the VMU without increasing the required manpower. Additionally, the Marine Corps will stand up a third VMU as part of the Grow the Force initiative. VMU-3 will achieve IOC in fiscal year 2008. Initially home based at Marine Corps Air-Ground Combat Command in Twenty-Nine Palms, CA., VMU-3 will eventually move to better support III Marine Expeditionary Force. This will greatly increase the MAGTF's UAS capacity and operational-tempo flexibility.

Vertical Unmanned Aircraft System (VUAS): As the future Tier III, VUAS will provide responsive, real-time reconnaissance, surveillance, intelligence, electronic attack, targeting and weapons employment capability that is organic to the MAGTF and JTF Commanders. It will



have the key attributes necessary to support Expeditionary Maneuver Warfare. These include takeoff and landing from air-capable ships and austere land bases, the speed to be responsive and tactically agile, and the survivability required to operate effectively in denied-access environments. The VUAS ICD was approved in December 2005 and an Analysis of Alternatives (AoA) that examined existing UASs, their costs, and their ability to meet the Marine Corps requirements was completed in November 2007. The AoA will inform Program Objective Memorandum-2010 programmatic decisions.

OPERATIONAL SUPPORT AIRLIFT (OSA)

The Marine Corps presently operates four different types of aircraft to fill its operational support airlift (OSA) requirements: the C-9 Skytrain, UC-12 King Air Orion, C-20G Gulfstream IV, and UC-35 Citation 560 Ultra and Encore. OSA aircraft provide air logistics support to our warfighters by moving high priority passengers and cargo between and within theaters of operation. OSA aircraft carry out short-notice, time-critical logistical air movements, relieving front-line tactical squadrons from this necessary, but non-tactical mission. By freeing our tactical aircraft assets from routine missions, OSA aircraft are an effective combat multiplier for the Marine Air Ground Task Force (MAGTF), joint force and regional combatant commanders. In peacetime, OSA aircraft are used to provide logistic support to ensure military effectiveness in support of national defense, essential training for operational personnel, and cost effective seasoning of pilots.

Below are recent examples (by type of aircraft) that illustrate Marine Corps OSA's relevance to the Global War on Terrorism (GWOT):

The C-9 provided airlift support to MAGTF-8, the lead element of a multinational interim force following the resignation of Haitian President Jean-Bertrand Aristide in February 2004 and transported Marine Corps forces and equipment to and from Southwest Asia.

The UC-12 was deployed to Kuwait and Iraq in support of I Marine Expeditionary Force during Operation Iraqi Freedom, where these aircraft delivered key combat personnel and more than 70,000 pounds of critical cargo in support of the Marine forces and provided airlift support to MAGTF-8.

The C-20G (based at Marine Corps Air Station Kaneohe Bay, HI) was forward-deployed to Bahrain in support of U.S. Marine Forces Pacific and the warfighters in theater during the opening months of Operation Enduring Freedom. This aircraft continues to provide frequent global airlift for GWOT support.

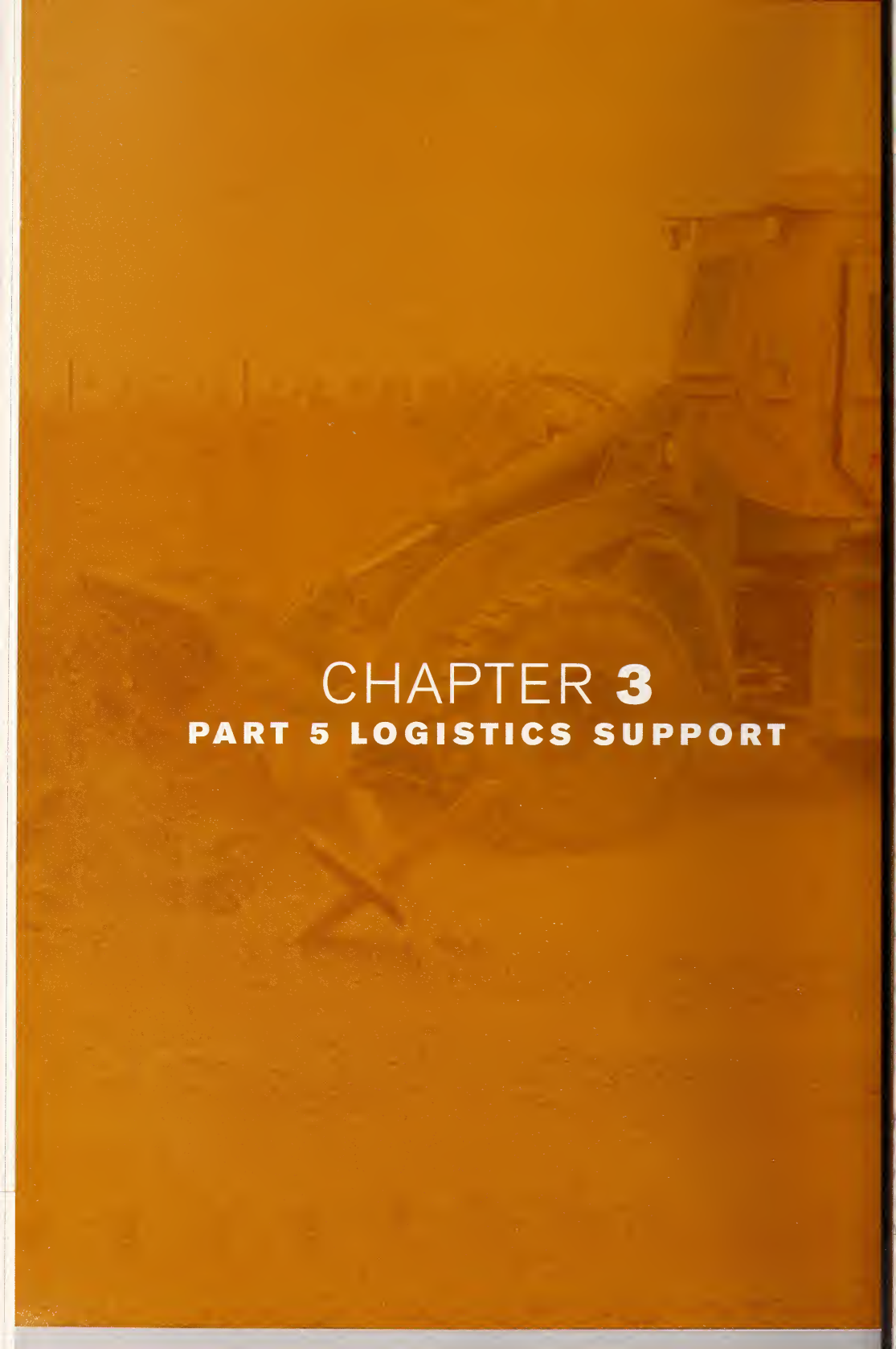
The UC-35 transported critically needed Combat Air Patrol (CAP) pilots throughout the United States to their respective bases immediately following the terrorist attacks of September 11, 2001. During this period, civilian aircraft were precluded from flying in the continental United States and military transport aircraft were utilized for efficient, expeditious transportation of key personnel. Marine Corps UC-35's are currently forward-deployed in Southwest Asia providing invaluable daily support to the regional combatant commander and relief to tactical aircraft by moving personnel and cargo throughout the theater.

In the continental United States, Marine Corps OSA is managed by U.S. Transportation Command (USTRANSCOM) for scheduling. USTRANSCOM maintains and utilizes the Joint Operational Support Aircraft Center to maximize use of all available continental United States OSA assets, regardless of service. They additionally support the MAGTF at combined exercises, such as Desert Talon. The incorporation of OSA into MAGTF exercises

relieves participating tactical squadrons from much of the exercise-associated administrative logistical airlift requirements. This, in turn enables the tactical squadrons to focus more time and resources on combat-related flight training.

Acquisition of relatively low-cost, commercial off-the-shelf aircraft with minimal militarization provides MAGTF commanders swift, on-demand support. Current initiatives will ensure the availability of short-notice, time-critical, logistical air support using more capable aircraft fully integrated into Marine Corps operations.

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CHAPTER 3
PART 5 LOGISTICS SUPPORT

INTRODUCTION

Logistics support to the Individual Marine and, indeed, the U.S. Marine Corps takes on many forms, involves numerous activities and spans the Service's training, research and development, and operational requirements. These logistics activities and initiatives involve the combined efforts of every Active Duty, Reserve and civilian Marine logistician throughout the Corps for a single primary reason: to ensure that the Individual Marine can carry out assigned missions and tasks.

Operation Iraqi Freedom has led to a conceptual change in the way we provide operational-level logistics support to Individual Marines at home and deployed to forward operating areas. Due to changing operational and mission requirements, Marine Corps Logistics Command is implementing capabilities extending beyond traditional boundaries, creating a more mobile and agile organization. For example, the Marine Corps Logistics Command (Forward) was established to satisfy operational logistics requirements using competitive, comprehensive, and integrated solutions obtained from "the best" strategic Department of Defense and commercial providers. While continuing to execute its strategic-level responsibilities, Marine Corps Logistics Command has also transformed from a garrison-centric organization to one capable of deploying operational-level logistics solutions to augment the sustainment requirements of Marine forces in combat.

Within this construct, the centerpiece Marine Corps Logistics Modernization Strategy will revolutionize how Individual Marines are sustained in garrison and on the battlefield through cutting-edge technologies, process improvements, reorganization actions and the realignment of logistics functions within the Marine Expeditionary Force.

Another effort that will have a broad impact on the Individual Marine and throughout the Marine Corps is the Urgent Universal Need Statement (UUNS) process that enables deployed commanders to request equipment based on their recent experience. Designed to procure equipment more expediently than if submitted in the regular budgeting process, the Marine Corps' UUNS process uses a secure, web-based system that provides full stakeholder visibility from submission through resolution. Through continuous process improvement, we have reduced our average processing time by 51.3 days. Our goal is responsive support to commanders in the field by providing a rational, disciplined, and time-sensitive process that fulfills validated urgent requirements in the quickest, most logical way.

Marine Corps programs are also supporting America's joint forces, underscored by the Marine Corps Logistics Command taking the lead as the Service Executive Agent for the retrograde of all equipment in theater determined to be excess. In addition to receiving, preparing, and shipping excess equipment within theater, the Marine Corps Logistics Command (Forward) coordinates strategic lift requirements and manages the redistribution of principal end items to meet sourcing priorities.

ELECTRONIC ACQUISITION

The Headquarters Marine Corps Electronic Acquisition Team's mission is to continue to streamline the acquisition process via the use of electronic business systems. In doing so, the Team represents Marine Corps Field Contracting System and other USMC interests at the Defense Sourcing Portfolio Board (DSPB) level. Its goal is to ensure that Marine Corps needs are met, while cross-Military Department interoperability and effectiveness are also supported.

The Headquarters Marine Corps Electronic Acquisition Team actively participates on all DSPBs with the Marine Corps Systems Command (MCSC) to:

- Ensure that Marine Corps Paperless Acquisition Initiatives align with the Defense Business Systems Management Committee's Business Enterprise Architecture/Enterprise Transition Plan.
- Interface with the MCSC Information Systems and Infrastructure Product Group in order to identify barriers to deployment of new portfolio programs.
- Implement and adopt new enterprise capabilities.
- Identify legacy programs that should be eliminated or replaced.

In fiscal year 2008, new initiatives include the Inter-Governmental Transactions Pilot, Demand Unique Identifier Pilot, transmission of contract data from USMC Standard Procurement System (SPS) sites to the Defense Contract Management Agency (DCMA), Mechanization of Contract Administration System (MOCAS), and transmission of Naval Facilities Engineering Command contract information for USMC funded actions to the Standard Accounting, Budget and Reporting System (SABRS).

LOGCOM FORWARD

The Marine Corps Logistics Command Forward (MCLC-Fwd) was formed to fulfill the need to unify numerous disparate command logistics teams operating independently in CENTCOM AOR. The Marine Expeditionary Unit Augmentation Program (MAP) and Forward-in-Stores (FIS) are two successful MCLC-Fwd initiatives. The MAP provides a limited equipment set within CENTCOM Theater to enhance the combat readiness and responsiveness of MEUs as they conduct operations in the CENTCOM AOR and reduce the MEU equipment that is shipped from CONUS. The FIS provides for the exchange of damaged equipment. MCLC-Fwd is a proven concept, executing operational-level logistics, providing regional logistics expertise with direct reachback to the Marine Corps Logistics Command. The success of the MCLC-Fwd model provides impetus to develop future strategies for supporting the warfighter.

LOGISTICS MODERNIZATION (LOGMOD)

Marine Corps Logistics Modernization (LogMod) is an enterprise-wide logistics improvement and integration program designed to increase the operational reach and lethality of the Marine Air Ground Task Force (MAGTF). LogMod consists of seven initiatives and integrated Information Technology (IT) that, when fully implemented, will drive improvements in technologies, processes, and people. The key initiatives include:

- Global Combat Support System-Marine Corps (GCSS-MC)
- Logistics Operational Architecture (Log OA)
- Marine Logistics Group (MLG) Reorganization
- Logistics Command and Control (Log C2)
- Realignment of Maintenance (ROM)
- Realignment of Supply (ROS)
- Marine Air-Ground Task Force (MAGTF) Distribution

GCSS-MC is the primary technology enabler for the Corps' LogMod strategy. It is a portfolio of approximately 40 systems providing the backbone for logistics information required by the MAGTF. The core is an ACAT I acquisition of commercial off-the-shelf enterprise resource planning software (Oracle 11i e-Business Suite) that will be battlefield-focused and interoperable with the logistics systems of other Services, supporting agencies and integrated with emerging technologies. GCSS-MC is discussed in greater detail in the "LCE Major Acquisitions" section of this publication.

With a focus on logistics effectiveness on the battlefield and support to operating forces, logistics processes and policies continue to be refined in a variety of forums. Two Logistics Wargames have been conducted to validate improved logistic processes and organizations. Material Readiness Process Improvement Workshops have addressed supply and maintenance processes and procedures. Battlefield distribution processes and organizations have been streamlined providing enhanced visibility of assets and inventory.

On the people side, the most visible and successful initiative is the ongoing reorganization of the Logistics Combat Element into Marine Logistics Groups (MLG). This restructuring is the most extensive done by an element of the MAGTF since the mid-1970s. The MLGs now consist of direct and general support Combat Logistics Regiments focused on operational support on the battlefield, with the ability to rapidly task organize in support of any mission. Close coordination with the Marine Corps Training and Education Command ensures logistics education and training is consistent with new policies and procedures, GCSS-MC, and the Logistics Operational Architecture.

LogMod efforts are supported by an extensive change management and communications program. The LogMod Transition Task Force (TTF) works in close partnership with the Combat Development and Integration Division and all stakeholders to coordinate LogMod initiatives and harmonize LogMod efforts both inside and outside the logistics community. Logistics Modernization Teams (LMTs) are co-located with the Marine Expeditionary Forces and leading

the face-to-face change management activities necessary to ensure LogMod and GCSS-MC successful implementation and adoption.

As a result of these coordinated efforts across the people, process, and technology domains, the LogMod program initiatives are well underway on many fronts and continue to see successful progress. For more information and the most recent program developments visit the LogMod website at https://LogMod.hqmc.usmc.mil.

GLOBAL COMBAT SUPPORT SYSTEM – MARINE CORPS (GCSS-MC)

DESCRIPTION

Global Combat Support System – Marine Corps (GCSS-MC) is a portfolio of information technology (IT) systems that supports the logistics elements of Command and Control (C2), Joint logistics interoperability, and secure access to and visibility of logistics data. At the core of GCSS-MC is the Logistics Chain Management (LCM) initiative which is the incremental implementation of commercial-off-the-shelf software (Oracle eBusiness Suite) to enable the Logistics Operational Architecture (LOG OA). The first increment "Block 1" provides initial capabilities for GCSS-MC/LCM and is a separate acquisition program with its own milestone events. GCSS-MC/LCM Block 1 is focused on improved supply and maintenance capability in the operating forces and has the following goals attributed to it:

- State-of-the-art software to improve the combat effectiveness of the operating forces.
- Design and fielding of a single capability that supports common processes in deployed operations and garrison environments.
- Enable the Logistics Operational Architecture (LOG OA) business processes and improved business rules leading to more effective logistics support.
- Retirement of the following legacy systems: Supported Activities Supply System (SASSY), Marine Corps Integrated Maintenance Management System (MIMMS), PC MIMMS, Asset Tracking, Logistics, and Supply System (ATLASS)

OPERATIONAL IMPACT

The GCSS-MC portfolio and the GCSS-MC/LCM initiative provide a modernized solution to an identified, critical warfighting deficiency in logistics information systems. It will facilitate change to antiquated logistics processes and procedures by introducing cutting edge enabling technology in support of logistics operations. It will align our logistics efforts with real-world challenges, where speed and information have replaced mass and footprint as the foremost attributes of combat operations. Key capabilities in GCSS-MC/LCM include 1) a multi-environment architecture, which provides for a CONUS enterprise environment (reflective of USMC CONUS organization) and a deployed Marine Air Ground Task Force (MAGTF) environment ("cloned" from the enterprise environment and scaleable/tailored to the mission), 2) a Cross Domain Solution (CDS) which allows data transfer between Secure Internet Protocol Router Network (SIPRNET) and Nonsecure Internet Protocol Router Network (NIPRNET), and 3) a Mobile Field Service (MFS) capability which allows for disconnected operations from the CONUS or deployed network.

PROGRAM STATUS

GCSS-MC is an ACAT 1A Major Automated Information System (MAIS). The program is maturing rapidly with direct acquisition oversight provided by the Department of the Navy's Program Executive Office – Enterprise Information Systems (PEO-EIS). GCSS-MC/LCM Blk 1 received its Milestone "B" decision in June 2007. The program begins operational testing during fiscal year 2008 and is scheduled for implementation in fiscal year 2009.

Procurement Profile:	FY2008	FY2009
Quantity:		
CONUS Enterprise (with associated Disaster Recovery Environments)	1	0
MEF (with associated Disaster-Recovery Environments)	1	TBD
MEU (with associated Disaster-Recovery Environments)	1	TBD

Developer/Manufacturer:
Oracle USA, Inc
Redwood Shores, CA

MARINE AVIATION LOGISTICS TRANSFORMATION

For Marine Aviation to fight effectively future contingencies, logistics support must continue to be the viable force multiplier that Marine warfighters have relied upon in past years and conflicts. Together with developing future concepts, Marine Aviation logistics processes must evolve and advance in order to adequately support the modern Aviation Combat Element in expeditionary and sea base environments.

Marine Aviation is reshaping its aviation logistics elements to enable more responsive, flexible, and reliable combat support needed for future conflicts, while concurrently meeting today's readiness needs. Elements of this logistics transformation include Marine Aviation Logistics Support Program II (MALSP II), Marine Air Ground Task Force (MAGTF) Logistics Integration (MLI), including Naval Logistics Integration (NLI), and Marine Aviation Logistics Squadron (MALS) Future.

MARINE AVIATION LOGISTICS SUPPORT PROGRAM II (MALSP II)

For Marine Aviation Logistics (MAL), AIRSpeed offers the opportunity to dramatically improve expeditionary logistics for the warfighter. Specifically, the Naval Aviation Enterprise's continuous process improvement strategy (AIRSpeed) will be the basis for improving the time-tested doctrine of the Marine Aviation Logistics Support Program (MALSP). Applying AIRSpeed, MALSP II becomes the comprehensive aviation logistics program that postures Marine Aviation of tomorrow by enhancing the future ACE's operational freedom of maneuver with a more reliable and effective logistics system, which is adaptive in form, proactive in engagement, and lighter overall. MALSP II increases Marine Aviation's ability to rapidly deploy, employ, sustain, and redeploy in austere regions, as well as potential anti-access and denied-area scenarios. In addition, MALSP II provides an improved solution set for addressing uncertainty, variability, and bottlenecks in the end-to-end wartime logistics chain.

MARINE AVIATION LOGISTICS SQUADRON (MALS) FUTURE

MALSP II, coupled with AIRSpeed and the Doctrine, Organization, Training, Material, Leadership and Education, Personnel, and Facilities (DOTMLPF) process, will provide the framework that will enable Marine Aviation to take full advantage of emerging technologies and systems. Autonomic logistics, improved information technology, advanced transportation solutions, and enhanced industry partnerships on new platform acquisitions will all merge in defining the future of MAL.

MARINE CORPS CONTINGENCY CONTRACTING

Contingency Contracting in the Marine Corps offers direct support to tactical and operational forces engaged in the full spectrum of armed conflict and irregular warfare, both domestic and overseas. Presently, there are numerous contracting personnel deployed providing support to and enhancing the capabilities of operational commanders engaged in Operation Iraqi Freedom and Operation Enduring Freedom.

The training of Marine Corps contracting personnel has undergone change. A new training program has been developed and is located at Marine Corps Service Support Schools, Camp Johnson, North Carolina. This program significantly reduces time to train contracting personnel and returns the much needed contracting capability to operational commanders on a faster basis. Also, in an effort to provide the fleet Marine force with a more dynamic contracting corps, Marine contracting billets across the Corps have been evaluated and realigned. This realignment created a much more robust contracting capability for both operational and supporting establishment commands.

MARINE CORPS SMALL BUSINESS PROGRAM

The Marine Corps Small Business Program is instrumental to the Department of Defense and the Department of Navy in our joint commitment to maximize prime and subcontracting opportunities to small businesses, woman-owned small businesses, small disadvantaged business, service-disabled veteran-owned small businesses, historically under-utilized business zone small businesses, and Historically Black Colleges and Universities/Minority Institutions. Small businesses are more agile, flexible and innovative than their large counterparts. These capabilities make them uniquely qualified to support Marines wherever they serve.

To that end, the Marine Corps has appointed a Director for Small Business at Headquarters and Small Business Specialists at each Marine Corps contracting organization to provide training, advice, and guidance in support of small businesses while ensuring quality solutions for our acquisitions and effectively supporting the warfighter.

We are energetically pursuing new opportunities for small businesses by involving the Small Business Specialist early in acquisition planning, improving market research methods, reviewing acquisition processes, and increasing small business program awareness. We monitor the results of our efforts through a variety of methods to measure our improvement.

NAVAL LOGISTICS INTEGRATION (NLI)

NLI addresses the emerging requirement that Naval business practices, processes, and technologies be integrated across the sea, land, air, space, and cyberspace spectrum of conflict to a greater extent than ever before. NLI serves to integrate coherent, rapid, and agile logistics capability, with a primary focus on sustainment and end-to-end Naval logistics support for the warfighter.

To date, NLI has enabled dramatic improvement in sustaining deployed Navy and Marine Corps operating forces. Using the Navy's Cargo Routing Information File (CRIF) to more accurately track ship movements, Customer Wait Time has been reduced by over 50 percent for critically needed materiel shipments, with deployed MEUs routinely reporting receipt of urgently needed items within 10 days while afloat. The Navy's Advanced Traceability and Control (ATAC) system has been fielded to Marine Logistics Combat Element (LCE) units, expediting the return of over 89,000 repairable component shipments valued in excess of $688M, with delivery reliability exceeding 99.8 percent.

As part of future logistics support ashore, the NLI program is exploring new initiatives for the integration and optimization of critical Navy and Marine Corps logistics capabilities. These initiatives include common acquisition of ground, personal protective, and chemical-biological protective equipment; common depot level maintenance capacity management; common equipment maintenance at the tactical level; and common material requisitioning capabilities. Similar to the afloat initiatives, these ashore initiatives, when matured, will become the norm for future naval operations in both joint and coalition environments. Further, with the recent publication of A Cooperative Strategy for 21st Century Seapower, the maritime forces of the United States—the Navy, Marine Corps, and Coast Guard—have joined together to create a unified strategy that integrates sea power with other elements of national power, which should lead to future expansion of NLI to include the United States Coast Guard.

SENSE AND RESPOND LOGISTICS (S&RL)

The Marines Corps' future vision of highly maneuverable, highly flexible, decentralized operations requires a similar approach to logistics. Future operations, especially those involving Distributed Operations (DO) and Ship-to-Objective Maneuver (STOM), require an adaptable, flexible, and responsive logistic system. Sense and Respond Logistics (S&RL) incorporates these characteristics.

S&RL will enable joint efforts to integrate logistics from point-of-effect to source-of-supply/services across the Services and defense agencies. S&RL builds upon the theory of Net-Centric Warfare and Joint Adaptive Expeditionary Warfare practice. It accommodates the critical elements of high rates of change, closely coupled events, speed of command, and self-synchronization.

With information technology, S&RL receives and recognizes consumption and requirement patterns through the use of Intelligent Agents and quickly responds to these patterns. S&RL leverages the capabilities of network-enabled forces to share logistics information, share a common perspective of the battle space, provide early awareness of consumption and needs, allow commitment tracking, and allow for reconfiguration of the logistics system when needed.

In order to implement S&RL, the Navy and Marine Corps cannot merely modify current practices, but must pursue a network-enabled approach to operations that greatly improve the integration between operations and logistics through FORCENet. A key element to supporting S&RL is its use of actionable information received through Autonomic Logistics (AL). Under Naval Logistics Integration (NLI), the Marine Corps is working with the Navy and the Office of Naval Research (ONR) to initially bring both S&RL and AL capabilities to Marine Corps units and shore units of the Naval Expeditionary Combat Command (NECC).

AL supports the logistics capability by providing the time relevant readiness status of the operational forces in order to sustain them in a manner that expands the tactical flexibility and operational reach of the MAGTF. The first tangible effort to deploy an AL capability to the operating forces will be the Embedded Platform Logistics System (EPLS), which will provide the hardware and software for selected weapons systems to enable increased visibility of operational status.

AUTONOMIC LOGISTICS (AL)

DESCRIPTION

The Autonomic Logistics (AL) system will enable Marine Corps ground tactical equipment to autonomically monitor and report health and logistics needs to key decision makers. A key element of the enterprise logistics modernization efforts, the AL vision combines Sense and Respond Logistics with Condition Based Maintenance to provide enhanced visibility, logistical support, diagnostics, and prognostics. Optimizing support and sustainment is dependent on the accelerated delivery of actionable information whose collection and analysis is not burdensome to the warfighter. This information is exploited through the capability resident in the Global Information Grid to create situational awareness critical to Marine Corps and Joint Force commanders and to deliver Joint Logistics to the point of need with precision.

OPERATIONAL IMPACT

AL transforms delivery of Joint Logistics by providing critical insight to decision makers. Armed with a clearer picture of combat potential available with AL, commanders can leverage their resources to maximize warfighting effects.

PROGRAM STATUS

The Marine Corps has awarded a contract for Block I of Autonomic Logistics (aka Embedded Platform Logistics System) which will provide hardware and software to collect and process operational status and system health. Block I will provide the capability to 878 Light Armored Vehicle, 1057 Assault Amphibious Vehicle, and 5204 Medium Tactical Vehicle Replacements. AL Block I will is scheduled for production in fiscal year 2009.

AL Block II capabilities will include the ability to feed AL data into the Global Combat Support System-Marine Corps, automating the process of requesting repair parts and support services. AL Block III capabilities will include the ability to feed AL data into Global Command and Control System, providing enhanced platform readiness information for use in current and future operational planning.

Procurement Profile:	FY2008	FY2009
Quantity:		
LAV	878	TBD
AAV	1,057	TBD
MTVR	5,204	TBD

Developer/Manufacturer:
Lockheed Martin Simulation and Training Systems, Orlando, FL

FAMILY OF MATERIAL HANDLING EQUIPMENT (MHE)



DESCRIPTION

The Marine Corps Family of Material Handling Equipment (MHE) encompasses a wide variety of material-handling assets, ranging from light forklifts to heavy cranes and container handlers. Specific systems include the Rough-Terrain Container Handler; Extended Boom Forklift; Light-Capability, Rough-Terrain Forklift; High-speed, High-mobility Crane; Air Mobile Crane; Mobile Welding Shop; and, Multi-Purpose, Rubber-Tired Articulated Tractor.

OPERATIONAL IMPACT

Procurement of these systems will ensure that Logistics Combat Element entities have the ability to support the scheme of maneuver and logistical requirements of their supported Marine Air Ground Task Force.

PROGRAM STATUS

The Family of MHE program maintains the Marine Corps' material handling and transportation support capability. As such, various items are replaced as determined appropriate by the life cycle manager, Program Manager Engineer Systems. Specific items may be managed as acquisition or abbreviated-acquisition programs. However, there are several acquisition programs in progress at any point in time.

Procurement Profile:	FY2008	FY2009
Quantity:	All Items	650

Developer/Manufacturer:
Extended boom forklift: JLG Industries, Inc., McConnellsburg, PA

Light-capability, rough-terrain forklift: Terex American Crane, Wilmington, NC

Multi-purpose, rubber-tired, articulated-steering tractor: John Deere, Davenport, IA

All Terrain Crane: TEREX DEMAG CRANES Stafford, VA/Germany

Rough Terrain Container Handler: Kalmar LLC, San Antonio, TX

Tactical Welding Shop: Power Manufacturing, Covington, TN

*Various types

LOGISTICS VEHICLE SYSTEM REPLACEMENT (LVSR)



DESCRIPTION

The Logistics Vehicle System Replacement (LVSR) will replace the current Marine Corps heavy-tactical wheeled vehicle, the Logistics Vehicle System (LVS). As the Marine Corps' heavy-tactical distribution system, the LVSR Cargo variant will transport bulk liquids (fuel and water); ammunition; standardized containers; bulk, breakbulk, palletized cargo and, bridging equipment. The LVSR Wrecker variant will perform heavy wrecker/recovery missions, while the LVSR 5th Wheel or Tractor variant will tow heavy engineer equipment and combat vehicles with the M870A2 40 ton Medium Heavy Equipment Trailer. The LVSR will be employed throughout the Marine Air Ground Task Force (MAGTF) in the Marine Logistics Group, Marine Divisions, and Marine Aircraft Wings.

OPERATIONAL IMPACT

To successfully accomplish its mission, MAGTFs require a heavy ground logistics distribution system that is highly mobile, efficient, extremely reliable, and flexible. This system must be capable of operating over increased distances, with increased payloads, to meet the demands of Expeditionary Maneuver Warfare. The LVSR will rapidly distribute all classes of supply, while including a self-loading/ unloading capability to reduce dependence on external material handling equipment.

PROGRAM STATUS

A Low Rate Initial Production (LRIP) contract was awarded to Oshkosh Truck Corporation on 31 May 2006 to build 22 Cargo variant LRIP vehicles for Production Verification Testing and Initial Operational Test and Evaluation (IOT&E) during 2007 - 2008. Live Fire Test and Evaluation (LFT&E) was conducted in December 2007, with Initial Operational Test and Evaluation beginning in January 2008. Upon successful completion of test and evaluation, a Full Rate Production decision is expected in October 2009 for fielding. The LVSR Approved Acquisition Objective calls for 1,322 Cargo Variants, 272 Tractor Variants and 105 Wrecker Variants.

Procurement Profile:	FY2008	FY2009
Quantity:	80	43

Developer/Manufacturer:
Oshkosh Truck Corporation

MARINE CORPS BUSINESS ENTERPRISE

Marines pride themselves on being lean. An attribute achieved by continually focusing process improvement efforts on doing "more with less". To that end, the Marine Corps has developed an institutional capability to improve and sustain efficient business processes, to include the following initiatives.

- Established a Business Enterprise Office to coordinate continuous process improvement.
- Organized and deployed three geographically dispersed teams of process improvement experts to help organizational leaders sustain continuous process improvement.
- Instituted a timely and relevant training curriculum and skill development path for the workforce.
- Sharing improvements and demonstrated results with a variety of sources: depot rebuild, aviation maintenance, urgent needs statements, and regional contracting for materiel and services.

This capability directly contributes to combat readiness and warfighting excellence, enabling our Marines and civilian-Marines to be efficient and effective in their support of the operating forces. These efforts provide effective business enterprise solutions and internal management controls ensuring the Marine Corps' maintains traditional good stewardship of taxpayers' resources.

NAVAL AVIATION ENTERPRISE

The Naval Aviation Enterprise (NAE) includes over 200,000 Sailors, Marines, and career civilians; 3800 aircraft; 11 aircraft carriers and executes a budget in excess of $40 billion. The primary function of the naval enterprise is focusing these resources to provide this nation with the capability to operate from the seas, unencumbered by host nation restrictions, and to deter or defeat forces threatening our national interest.

The NAE Strategic Plan (January 2008) provides the roadmap of strategic objectives and priorities to guide our actions and decisions through 2030. The execution of this plan requires enterprise collaborations to address strategic gaps in the near term, and over the horizon. The challenges facing the NAE include: Carrier Inventory, airframe capacity, weapons system lethality, legacy platform funding support, the affordability of future capabilities, and the health of our workforce.

In sum, the Navy and Marine Corps are the nation's first responders and naval aviation serves as its centerpiece. Naval aviation faces significant challenges on the fields of fire and from fiscal realities. The NAE is committed to efficiently delivering the right force with the right readiness at the right time—today and tomorrow—and the fiscal challenges to achieve this reality will be addressed cooperatively.

CHAPTER 3

PART 6 MARITIME SUPPORT

INTRODUCTION

Marines have always been "soldiers at sea." When the Continental Congress decided on November 10, 1775, to raise two battalions of Marines, it specified "... that particular care be taken, that no such person...enlisted into said Battalions, but such as are good seaman, or so acquainted with maritime affairs as to be able to serve to advantage by sea when required." Colonel Commandant John Harris wrote in 1863, "We are of the Navy; are governed by Naval regulations on shore and afloat...." During Operation Desert Storm, Chairman of the Joint Chiefs of Staff General Colin Powell remarked, "Lying offshore, ready to act, the presence of ships and Marines sometimes means much more than just having air power or ship's fire, when it comes to deterring a crisis. And the ships and Marines may not have to do anything but lie offshore."

The close relationship between the Navy and the Marine Corps, tempered by operations and combat in every corner of the world since the War of Independence, remains strong today. Whether on board ship or on the ground, the Individual Marine remains at heart a "soldier at sea."

The forward-deployed Navy-Marine Corps Team provides Combatant Commanders with scalable options for presence, theater security cooperation, crisis response and combat. Marines deployed on naval shipping, combine forward presence with flexible and scalable response forces. Together, as America's force in readiness, we represent the United States on the high seas, in the littorals and on every continent, and will continue to play a pivotal role in protecting vital interests. Under our new maritime strategy, we will work closely with our Navy and Coast Guard shipmates. Individual Marines, Sailors and Coastguardsmen represent a military partnership that is second to none.

The Navy has many programs that directly or indirectly support the projection of Individual Marines ashore from the seabase. These include:

- Expeditionary Warships
- Amphibious Assault Ship Replacement
- *San Antonio*-class Amphibious Transport Dock Ship (LPD-17)
- Maritime Prepositioning Force Future (MPF(F))
- High Speed Connector (HSC)
- Landing Craft Air Cushion (LCAC)/Joint Maritime Assault Connector (JMAC)
- Naval Surface Fire Support Initiatives
- Mine Countermeasures

AMPHIBIOUS WARSHIPS



Amphibious warfare ships are the centerpiece of the Navy-Marine Corps' forcible entry and Seabasing capability and have played essential roles in the Global War on Terrorism. These ships are equipped with aviation and surface-assault capabilities, which, coupled with their inherent survival and self-defense systems, support a broad range of mission requirements. They provide the most formidable expeditionary forcible entry capability in the world, the development and maintenance of which is the statutory responsibility of the Marine Corps, under U.S. Code Title X.

The Marine Corps' forcible entry requirement is based on the Strategic Planning Guidance, directing us to "...consider capability alternatives...to support a single two Marine Expeditionary Brigade (MEB) forcible entry operation." Therefore, the Marine Corps' operational requirement is two MEB Assault Echelons (AE) of forcible entry capability. The need to support two MEB AEs in forcible entry operations drives the requirement to maintain 30 operationally available amphibious warfare ships. Of these 30 ships, 10 must be aviation-capable large deck ships (Amphibious Assault Ship General Purpose (LHA)/Amphibious Assault Ship Multi-purpose (LHD)/Amphibious Assault Ship – Replacement (LHA(R))), and 10 must be San Antonio Class LPDs to accommodate the MEB's Aviation Combat Element and surface assault element.

In early 2008, there are 10 large-deck ships (seven *Wasp*-class LHDs and three *Tarawa*-class LHAs) in service. Congress directed the construction of an eighth *Wasp*-class amphibious assault ship multi-purpose (LHD 8), USS *Makin Island*, which is scheduled to be delivered in late 2008. LHD 8 will be similar to LHD 1 through LHD 7 but will be powered by gas turbine engines and have all-electric auxiliaries.

AMPHIBIOUS ASSAULT SHIP REPLACEMENT

The amphibious fleet is organized for forward presence and includes nine Amphibious Ready Groups (ARGs)—each comprising three amphibious ships—which can comprise Expeditionary Strike Groups. The centerpiece of the ARG is a *Wasp*-class or *Tarawa*-class amphibious assault ship. The remaining three ships of the Tarawa-class amphibious assault ships general-purpose reach the end of their expected service lives between 2011 and 2015. The ships of the Amphibious Assault Ship Replacement Program—LHA(R)—will serve to replace the *Tarawa*-class LHAs.

SAN ANTONIO-CLASS (LPD 17) AMPHIBIOUS TRANSPORT DOCK SHIP

The *San Antonio (LPD 17)* class of Amphibious Transport Dock ships represent the Department of the Navy's (DoN) commitment to a modern expeditionary power-projection fleet and will assist the Marine Corps' naval forces across the spectrum of warfare. The LPD 17 was delivered to the Navy in the summer 2005. The operational evaluation and first deployment of LPD 17 are both scheduled to occur during 2008. With the first three of nine currently scheduled ships of the class already commissioned, the LPD 17 class replaces four classes of older ships—the Amphibious Cargo Ship (LKA), Tank Landing Ship (LST), Dock Landing Ship (LSD) 36, and the Amphibious Transport Dock (LPD) 4 class—and has a 40-year expected service life.

The LPD 17 class ships play a key role in supporting the Global War on Terrorism by forward deploying Marines and their equipment to respond to crises world wide. Its unique design facilitates expanded force coverage and decreases reaction times of forward deployed Marine Expeditionary Units. In forcible entry operations, the LPD 17 helps maintain a robust surface assault and rapid off-load capability for the Marine Air Ground Task Force well into the future.

San Antonio class warships incorporate advanced characteristics for amphibious warships. Each ship has 699 enhanced berths for embarked Marines, plus a surge capacity of another 101 berths. They also have a vehicle-stowage capacity of 24,600 square feet, cargo-stowage capacity of more than 33,000 cubic feet, and a well-deck sized for two Landing Craft Air Cushion (LCAC) or one Landing Craft Utility (LCU). Their flight decks can support operations by two CH-53E/K Super Stallions, two MV-22 Osprey tilt-rotor aircraft, or four CH-46E Sea Knight helicopters. The ships in this class are outfitted with two Rolling Airframe Missile launchers for self-defense and incorporate design features that present a significantly reduced radar cross-section compared to previous amphibious ships.

LANDING CRAFT AIR CUSHION (LCAC)/JOINT MARITIME ASSAULT CONNECTOR (JMAC)



The Landing Craft Air Cushion (LCAC) is a high-speed, fully amphibious craft that can carry a 60-ton payload (75 tons in overload) at speeds in excess of 40 knots. It has a nominal range of 200 nautical miles. Operating directly from the well decks of amphibious warships, the LCAC's ability to ride on a cushion of air and avoid underwater obstructions and terrain allows it to access more than 70 percent of the world's beaches, compared with 17 percent for conventional landing craft. A Service Life Extension Program (SLEP) began in late 2000 for the 72 active LCACs. It provides major refurbishment that will extend craft life to 30 years. Craft initially go through a system upgrade that includes the replacement of obsolete radios and radar, the installation of the Enhanced Position Location Reporting System, corrosion abatement, and upgrades of the current skirt system with an improved deep skirt. LCAC SLEP provides engine upgrades and refurbishes the hull, increasing the performance envelope. Phase II provides a Command, Control, Communications, Computers, and Navigation upgrade, which replaces these crafts' deteriorating and obsolete electronic suites. The Joint Staff approved the Initial Capabilities Document for a Ship-to-Shore Connector (SSC) capability to develop a replacement for the LCAC. The ensuing Analysis of Alternatives recommended a LCAC sized SSC with a greater lift capacity and the capability of operating from 25 miles or more from the coast. This materiel alternative to be called the Joint Maritime Assault Connector (JMAC), has been approved by the Navy pending a Joint Staff Milestone A decision. The JMAC will take advantage of advanced technology, materials, and design and so enhance the nation's ability to project expeditionary forces from the sea-based platforms of the future.

JOINT HIGH SPEED CONNECTORS (HSCS) SURFACE



The Joint Maritime Assault Connector (JMAC) is the functional replacement for the LCAC. The JMAC is a high-speed, over the beach sea base to shore connector that will be designed to carry all Marine Corps ground equipment. The Analysis of Alternatives (AoA) has been completed and the final AoA report-recommended standard conventional 73-short ton (SC-73) air cushioned vehicle has been selected as the materiel solution. Milestone A (MS A) documentation is currently in-work with a MS A decision anticipated in fiscal year 2008. The JMAC will begin fleet introduction in 2015.

The Joint High Speed Vessel (JHSV) is a key piece of the seabasing architecture. It bridges the gap between low speed sea lift and high speed airlift. JHSVs enable rapid closure of Marine forces to the sea base from advanced bases, logistics movement from pre-positioned ships to amphibious shipping, ship-to-ship replenishment, and, in appropriate threat environments, maneuver of assault forces to in-theater austere ports. Initial procurement objectives are for ten vessels (five Army, five Navy/Marine Corps). Contract award is projected for fiscal year 2008; subsequent awards are planned for fiscal year 2009 thru fiscal year 2011 with delivery of the first JHSV (Army) scheduled for fiscal year 2010.

MARITIME PREPOSITIONING FORCE (FUTURE)

Seapower is a distinct asymmetric advantage of the United States. For Marines, that asymmetric advantage includes Joint Seabasing, which allows us to maximize forward presence and engagement while "stepping lightly" on local sensitivities, avoiding the unintended political, social, and economic disruptions that often result from a large American presence ashore. It allows us to conduct a broad range of operations in areas where access is challenged, without operational commanders being forced to immediately secure ports and airfields. Given diplomatic, geographic, and infrastructure constraints, Seabasing is absolutely critical to overcoming area denial and anti-access weapons in uncertain or openly hostile situations. Joint Seabasing is a national strategic imperative. Our control of the sea allows us to use it as a vast maneuver space—365 days a year.

The incorporation of the Maritime Prepositioning Force-Future (MPF(F)) Squadron into the existing MPF Program is an important enabler for seabasing and will build on the success of the legacy Maritime Prepositioning Force program. MPF(F) will provide support to a wide range of military operations with improved capabilities such as at-sea arrival and assembly, selective offload of specific mission sets, and long-term, sea-based sustainment. From the sea base, the squadron will be capable of prepositioning a single Marine Expeditionary Brigade's critical equipment and sustainment for delivery—without the need for established infrastructure ashore.

The MPF (F) is a scalable employment option that will provide Combatant/Joint Force Commanders a highly flexible, operational and logistics support capability that enables it to rapidly reinforce the Assault Echelon of an Amphibious Force. When operating in a threat environment, MPF (F) will be protected by other Naval, Joint, or Combined forces. MPF (F) will rapidly support the arrival and assembly of MAGTF units and associated Navy elements. It will also provide support for persistent operations through sustainment and replenishment, with the ability to rapidly reconstitute and redeploy prepositioned forces in support of follow-on missions.

A summary of MPF(F) squadron capabilities follows:

- Preposition the Baseline MEB, NSE, other Naval Support, Naval Mobile Construction. Battalion (NMCB), and headquarters element Naval Construction Regiment (NCR), consisting of vehicles, equipment, and supplies (minus aircraft)
- Provide accommodations for the Sea Base Echelon (SBE), NSE, other Naval Support personnel, Standing Detachments and ship's crew
- Rapid closure of the Baseline MEB to the Seabase
- Complete at sea arrival and assembly
- Employ one surface and one vertical BLT from the sea
- Accommodate Organizational (O) and selected Intermediate (I) level aviation
- Accommodate O and I level ground commodity maintenance
- Sustain the MEB forces ashore from the sea base and contribute to throughput and sustainment for additional Joint forces
- Accommodate and operate organic surface connectors to include O and selected I level maintenance

- Provide resuscitative medical care (Level II)
- Accommodate and operate organic surface connectors
- Conduct external operations through sea state 3/sea state 4 (threshold/objective (T/O)).
- Provide MEB level command and control capability.

The MPF(F) squadron will replace one of the current MPF squadrons, and within the Joint Capability Integration and Development System (JCIDS), will be procured incrementally consisting of the following types of ships:

- Increment One:
  - (3) New construction MLPs (Mobile Landing Platforms).
  - (3) New construction MPF (F) T-AKE (Auxiliary Cargo and Ammunition Ship) variants.
- Increment Two:
  - (2) New construction MPF(F) LHA(R) (Amphibious Assault Ship Replacement) variants.
  - (1) Legacy LHD (Amphibious Assault Ship Multipurpose) (not a procurement program).
- Increment Three:
  - (3) New construction MPF (F) LMSR (Large, Medium Speed Roll-on/Roll-off) (Modified T-AKR 300 or 310 Class) variants.
  - (2) Existing T-AK (Auxiliary Cargo Ship) Sealift Ships (not a procurement program).

The MPF(F) Capabilities Development Document (CDD) for increment one will go to the Joint Requirements Oversight Council (JROC) during the 2nd quarter fiscal year 2008, with a Mile-

MPF(F) Squadron Composition

2 T-LHA
New Build



Length: 844 ft	Beam: 106 ft	Draft: 28.2 ft	Displacement: 45K LT
Per Sqd: 2	Speed: ~20 knots		Range: ~9,500 nm
Crew: 285	Stand Det: 23	MAGTF: 1,490	NSE: ~590 Berths: 3,052
A/C Stow: 55	A/C Op Spts: 9	JP-5: 1.6 Mil gal	Water: 400K gal / 200K gal/day
SqFt: 11,600	CuFt: 160,000		Well Deck: N/A
TEU: N/A	Med: 2 OR & 24 Beds 4 OR & 16/45		Stern Ramp: N/A

3 MLP
New Build / Design
Artist Rendition / Notional Configuration FLO / FLO Technology Focused



Length: TBD	Beam: TBD	Draft: TBD	Displacement: TBD
Per Sqd: 3	Speed: ~20 knots		Range: ~9,500 nm
Crew: 64	Stand Det: 10	MAGTF: 594	NSE: ~128 Berths: 1,458
A/C Stow: 0	A/C Op Spts: 1	JP-5: ~1.2 Mil gal	Water: ~168K gal / TBD gal/day
SqFt: ~11,253	CuFt: ~935		Mission Deck: 6 (LCAC)
TEU: N/A	Med: Sick Call		Stern Ramp: N/A

1 T-LHD
Legacy



Length: 844 ft	Beam: 106 ft	Draft: 27 ft	Displacement: 42K LT
Per Sqd: 1	Speed: ~20 knots		Range: ~9,500 nm
Crew: 285	Stand Det: 23	MAGTF: 1,656	NSE: ~670 Berths: 2,946
A/C Stow: 42	A/C Op Spts: 9	JP-5: 607K gal	Water: 400K gal / 200K gal/day
SqFt: 24,012	CuFt: 145,000		Well Deck: 3 LCAC
TEU: N/A	Med: 6 OR & 60 Beds		Stern Ramp: 72 ST

3 T-AKE
New Build / Modified Design
Artist Rendition / Notional Configuration



Length: 689 ft	Beam: 105 ft	Draft: 29 ft	Displacement: 39K LT
Per Sqd: 3	Speed: ~20 knots		Range: ~9,500 nm
Crew: 123	Stand Det: 6	MAGTF: ~10	NSE: ~55 Berths: 197
A/C Stow: 1	A/C Op Spts: 1	JP-5: 1.3 Mil gal	Water: 52.8K gal / 28K gal/day
SqFt: N/A	CuFt: 1,108,592		Well Deck: N/A
TEU: 61	Med: Sick Call		Stern Ramp: N/A

3 T-AKR
New Build / Modified Design
Artist Rendition / Notional Configuration



Length: 950 ft	Beam: 106 ft	Draft: 34 ft	Displacement: 55K LT
Per Sqd: 3	Speed: ~20 knots		Range: ~9,500 nm
Crew: 30	Stand Det: 48	MAGTF: 705	NSE: ~62 Berths: 845
A/C Stow: 0	A/C Op Spts: 2/4	JP-5: 380.4K gal	Water: 33.5K gal / 24K gal/day
SqFt: 260,799	CuFt: 51,682		Well Deck: N/A
TEU: 45	Med: 6 OR & 60 Beds		Stern Ramp: 80 ST

2 Legacy

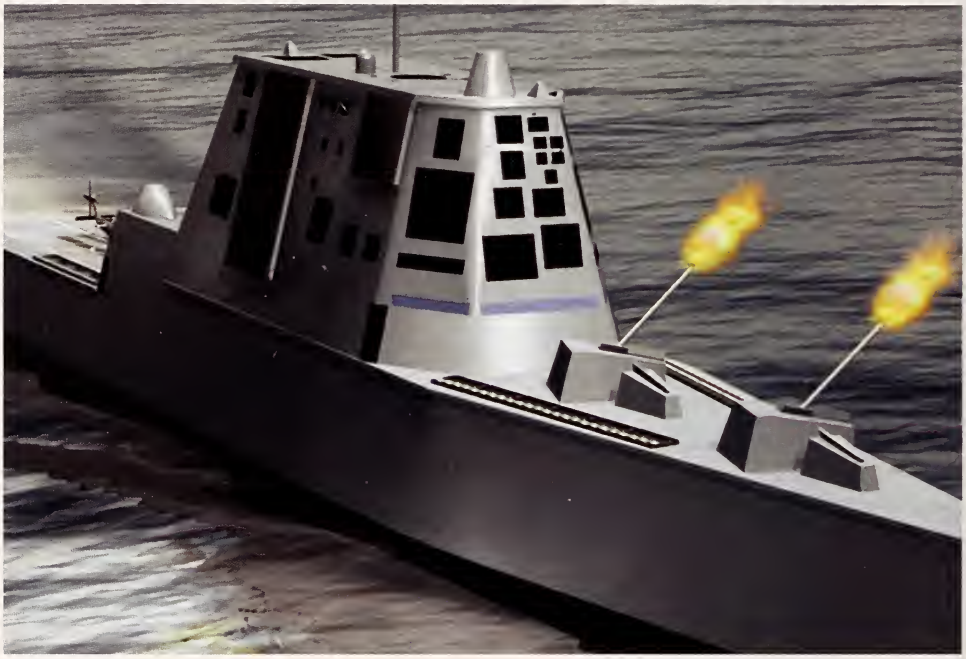


Length: 673 ft	Beam: 106 ft	Draft: 34.6 ft	Displacement: ~46K LT
Per Sqd: 2	Speed: 17.7 knots		Range: 12,900 nm
Crew: 30	Stand Det: 16	MAGTF: 71	NSE: ~10 Berths: 127
A/C Stow: 0	A/C Op Spts: 1	JP-5: 1.4 Mil gal	Water: 99K gal / 25K gal/day
SqFt: 152,185	CuFt: N/A		Well Deck: N/A
TEU: 546	Med: Sick Call		Stern Ramp: 62 ST

stone B decision projected in 2010. The CDD for increment two is projected to begin staffing during fiscal year 2008.

As each ship of the MPF (F) squadron is delivered, it will incrementally transform one existing squadron from a "port to port" delivery capability to an increasingly selectively off loadable, "sea-based" capability. MPF (F) squadron Initial Operational Capability (IOC) will be considered achieved when the first big deck amphibious ship (LHA(R) or LHD), T-AKE, MLP and LMSR are delivered/provided, embarked with prepositioned assets and deployed, notionally in fiscal year 2017. This will provide the geographic combatant commanders with limited employment, sustainment, and reconstitution capability for a Marine Expeditionary Unit equivalent sized force. MPF (F) T-AKEs that are delivered prior to IOC will be used to provide a limited selective offload sustainment capability as elements of the MPF (F) squadron are delivered. Deployment of a complete MPF (F) squadron, the Full Operational Capability, is notionally planned for fiscal year 2022.

NAVAL SURFACE FIRE SUPPORT INITIATIVES



Firepower, including responsive, lethal, and persistent fires from U.S. Navy surface ships, is essential in expeditionary operations. A robust, around-the-clock, all-weather, sea-based fire support capability is vital to the success of naval forces engaged in littoral combat operations. The current Naval Surface Fires Support (NSFS) capability is inadequate in range, volume, and accuracy for supporting expeditionary operations throughout an extended battlespace. The Navy continues to pursue development and testing of an extended-range and guided, fire support capability for use by the fleet to support the Marine Corps capstone concept of Expeditionary Maneuver Warfare.

In December 2005, the Joint Requirements Oversight Council validated an Initial Capabilities Document, the Joint Fires in Support of Expeditionary Operations in the Littorals ICD, and recognized NSFS as a potential solution for mitigating several of the identified fire support gaps. These include the ability to engage targets in close support of maneuver forces or with collateral damage concerns, and the ability to provide volume effects over a large area or for sustained periods of time. The Navy has several efforts planned to reduce these capability gaps, including current programs of record and future technology development that will usher in a transformational fire support capability from the sea.

During fiscal year 2011, the Navy anticipates fielding the Extended Range Munition (ERM) aboard Guided Mis-

sile Destroyers (DDGs) equipped with 5-inch/62-caliber guns. This munition will permit Marine Air Ground Task Force (MAGTF) commanders to engage targets with volumes of fire and Global Positioning System-guided precision weapons from over the horizon. Shattering the existing capability of 13 nautical miles, ERM will provide close supporting and interdiction fires to ranges exceeding 41 nautical miles. The system's ability to mass multiple rounds for simultaneous impacts from a single gun (up to 9 projectiles) combined with its extended range and accuracy marks a transformational change in expeditionary fire support. Reliability tests for the munition are scheduled for fiscal year 2008 and fiscal year 2009 as part of the developmental process.

Beginning in 2014, the Navy will field another fully integrated, transformational fire support system. The DDG 1000 Zumwalt class Land Attack Destroyer, equipped with two 155mm Advance Gun Systems (AGS), each with a 300 round magazine, will add considerable firepower and flexibility to the Expeditionary Strike Group and Expeditionary Strike Force. The AGS, firing the Long Range Land Attack Projectile, will increase the effects of the MAGTF's NSFS fires to over 63 nautical miles. The DDG 1000 will also be the first naval ship designed to integrate counter-fire detection with its own weapon systems and digitally communicate the information to the Supporting Arms Coordination Center for engagement.

Future technologies will further develop the transformational nature of NSFS. New technology demonstration efforts underway include an Electromagnetic Rail Gun. Future battlefield commanders may harness the destructive power of mach 7+ propelled projectiles using electromagnetic energy produced aboard the Navy's future family of all-electric ships, which include the DDG 1000 and CG(X), the next generation cruiser. The Marine Corps will continue to monitor developing technologies with an eye toward how they may be integrated to support future operating concepts.

NSFS ERM will offer a complementary capability to tactical aviation and ground fire systems that will reshape the way fires are planned and used by the MAGTF. With continued commitment, the Marine Corps and the rest of the Joint community can rely upon NSFS as readily available, all-weather fire support systems capable of engaging targets across the full range of military operations in the littorals.

MINE COUNTERMEASURES (MCM)

A family of Navy and Marine Corps Mine Countermeasures (MCM) systems is being developed and fielded to allow joint/combined sea-based forces to conduct expeditionary operations at a time and place of our choosing, to include terrain defended by anti-access systems such as mines and obstacles. Tactics, techniques, procedures, and material solutions are being developed to support seamless naval expeditionary operations throughout the littoral and beyond.

FROM THE STERN GATE THROUGH THE BEACH

Sea-based forces first require an effective mine countermeasures capability to open and maintain sea lines of communication and to operate within the littoral battle space. The ability to operate in areas defended by enemy mines and obstacles requires a family of capabilities, which includes detection, location, neutralization, marking, and data dissemination. This family of capabilities will allow commanders to detect and avoid mines and obstacles when possible, and breach when necessary.

In conducting Operational Maneuver From The Sea (OMFTS), the Marine Corps relies upon the Navy to maneuver its expeditionary forces to the beach, allowing the deployment and prosecution of operations ashore. Some forces, equipment, and supplies will have to cross the beach regardless of our future vertical-lift capabilities. In specific areas of national strategic interest, the assault force faces challenges in detection and avoidance of littoral waters and landing beaches fouled by mines and obstacles. In these areas of present and future interest, suitable landing beaches are limited—and our potential adversaries know precisely where they are.

The Navy's triad of deep-water MCM capabilities resides in surface mine countermeasure ships, airborne mine countermeasure helicopter squadrons, and underwater mine countermeasure teams consisting of Explosive Ordnance Disposal (EOD) detachments, equipped with Marine Mammal Systems and unmanned vehicles. The MCM triad stands ready to conduct large-area or long-endurance MCM operations from deep water to the 40-foot depth contour.

The Navy is engaged in an effort to augment the triad with MCM systems placed onboard the ships of Carrier and Expeditionary Strike Groups, as well as equipping the Littoral Combat Ships with MCM mission modules. These are designed to provide a self-contained, "organic" capability to detect, avoid, and/or neutralize mines within an operationally acceptable timeline and with acceptable levels of operational risk. This next generation of systems includes the Remote Mine-Hunting System and the Long-Term Mine Reconnaissance System, among others.

The physics of ship-draft requirements, sensor and system operating limits, diver physiology, mine characteristics, and an extremely dynamic environment, combined with the requirement for co-

vert operations and many other factors, limit effectiveness of deep water systems for very shallow water (VSW - 10 to 40 feet deep), the surf zone (SZ - 10 feet to the beach), and Beach Zone (BZ) operations.

In response, the Navy has fielded a specialized family of capabilities to contend with mines and obstacles in these technologically challenging environments. Explosive Ordnance Disposal Mobile Unit 1 (EOD MU 1), formerly known as the Naval Special Clearance Team 1 (NSCT-1), which consists of a 180-man unit composed of Navy EOD, Marine Reconnaissance Divers, and support personnel—fulfills an important part of the requirement. EOD MU-1 employs unmanned underwater vehicles, marine mammals, and divers to conduct low-visibility mine exploration, reconnaissance, and clearance operations in waters from 600- to 10- feet deep. Data collection devices such as the Coastal Battlefield Reconnaissance and Analysis (COBRA) System will provide the Navy and Marine Corps with essential visual reconnaissance information on mine lines and SZ/BZ defenses. The Navy's science and technology effort is also investigating the effectiveness of precision-delivered Joint Direct Attack Munitions (JDAM) against certain SZ/BZ mines and obstacles. The JDAM Assault Breaching System (JABS) capability provides an SZ/BZ MCM obstacle breaching capability.

In the far-term (fiscal year 2012 and beyond), the science and technology endeavor is pursuing "smart" bomb- and gun-delivered munitions designed to destroy concentrations of SZ/BZ mines. This includes the Navy's Counter Mine System (CMS) which uses a spray of small darts to neutralize mines in the beach and surf zones. This promising technological approach offers the potential for standoff operations and the removal of men and mammals from the minefield—two key MCM goals.

THROUGH THE BEACH AND BEYOND

Once ashore, naval expeditionary forces must be capable of detecting, breaching, clearing, proofing, and marking mines and obstacles, and of disseminating mine and obstacle data. From the critical Navy-Marine Corps handoff in the vicinity of the beach exit to the force objectives and beyond, Marine Corps commanders must be able to detect and avoid ground mines and obstacles when possible, and breach them when necessary. The Marine Corps' current inventory of MCM systems includes the AN/PSS-14 Mine Detector (which utilizes ground penetrating radar to locate mines), explosive breaching systems- the Assault Amphibian Vehicle with Mk154 Triple-Shot Line Charge, Mk155 Mine Clearing Line Charge (MICLIC), and Anti-Personnel Obstacle Breaching System (APOBS)—and mechanical breaching/clearing/proofing systems (M1 tank with track-width mine plow and armored D-7 dozer). In aggregate, these systems provide a limited and aging deliberate breaching capability. They do not meet

the detection, speed, and responsiveness requirements of the modern battlefield.

Two acquisition programs promise to significantly improve Marine Corps MCM capabilities:

- Advanced Mine Detector (AMD) With an Initial Operational Capability of fiscal year 2008 and Full Operational Capability of fiscal year 2009, AMD will employ ground penetrating radar technology to detect buried anti-personnel and anti-tank mines. This is a key capability in light of the worldwide proliferation of low and non-metallic mines



- Assault Breacher Vehicle (ABV) With an Initial Operational Capability scheduled for fiscal year 2009, ABV will be a single-platform mine-field breaching/clearing/proofing/marking system that possesses the speed and mobility of modern mechanized forces. Combining two Mk155 Line Charges, a Full-Width Mine Plow, and a breached lane marking system on an M1 tank chassis, the ABV will offer deliberate and "in-stride" breaching capabilities—allowing commanders to maintain initiative and momentum.

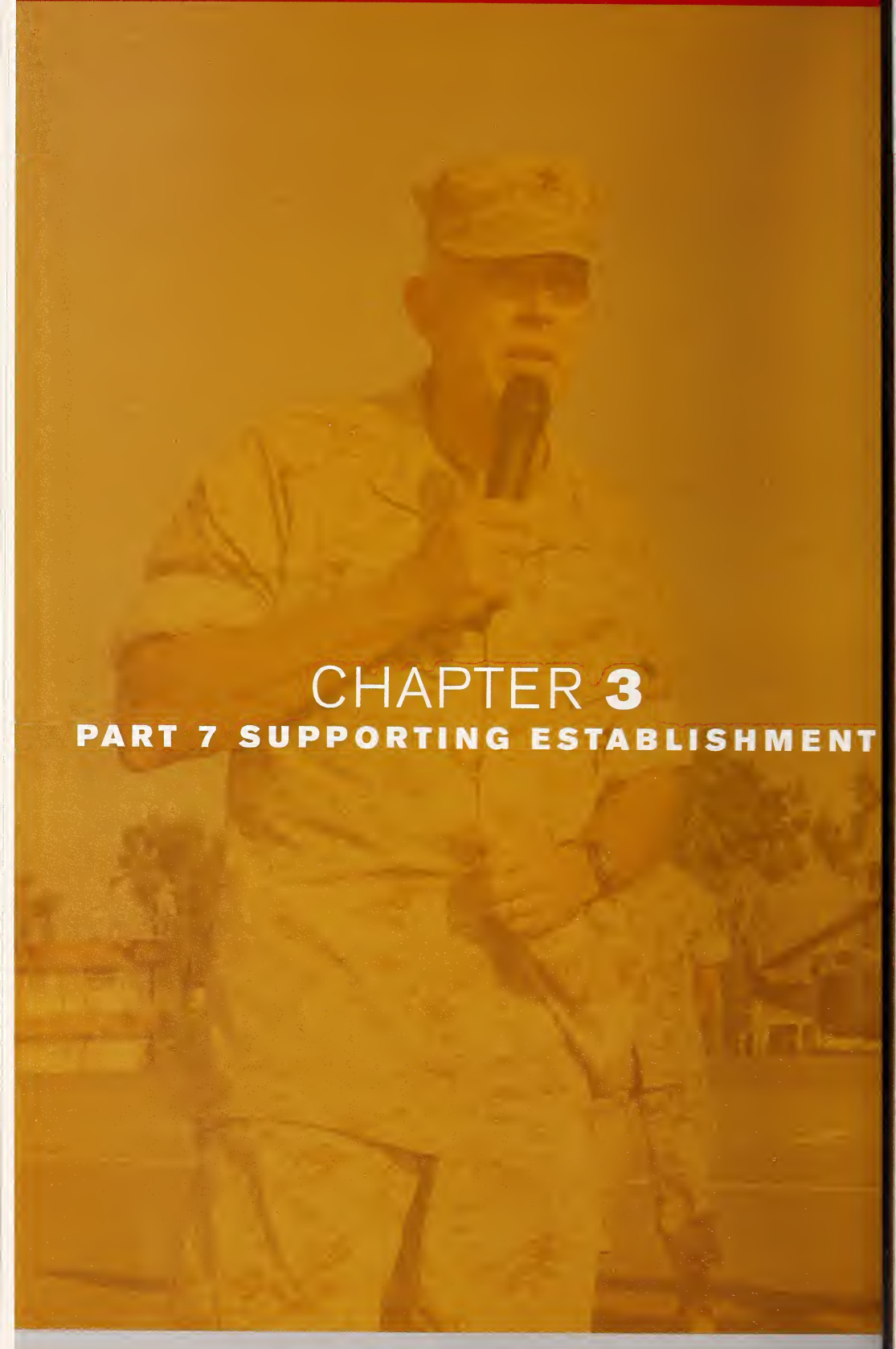
MCM doctrine, training, and equipment are continuously evolving to cover capability gaps, replace obsolete equipment, and meet the challenges posed by newer threats, such as Improvised Explosive Devices (IEDs), off-route mines, and anti-helicopter mines.

Current Marine Corps MCM systems face challenges in providing force commanders with the desired "in-stride" capability to achieve and maintain initiative and momentum in a full spectrum anti-access environment. The Marine Corps developed its own MCM master plan, designed to fill remaining capability gaps and provide a road map for the future, which was implemented in 2004.

MCM FOR THE GLOBAL WAR ON TERRORISM

Operations in the Global War on Terrorism require the fielding of systems designed to remotely detect IEDs and mine-initiated ambushes to ensure the mobility of the MAGTF while ashore. Testing on many technologies to locate off-route, semi-buried mines and IEDs is currently underway, in conjunction with the Joint Area Clearance Advanced Concepts Technology Demonstration office. Considering the threat faced in the GWOT, the Marine Corps has aggressively pursued the Mine Resistant Ambush Protected (MRAP) vehicle to protect Marines operating in a high threat environment. As of October of 2007 more then 450 vehicles had been deployed to the U.S. Central Command (USCENTCOM) area of operations. These vehicles have already proven their worth by saving the lives of several Marines.

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CHAPTER 3

PART 7 SUPPORTING ESTABLISHMENT

INTRODUCTION

Installations and facilities in the United States and overseas are the foundation and framework for the Marine Corps' readiness in the 21st Century. Our security depends on installations and facilities that are available when and where needed, with the right capabilities, to support current and future operational requirements, effectively and efficiently.

Our Individual Marines and their families are our most precious assets. We owe them the best housing, workplace and training environments that we can provide. We owe them a commitment commensurate with the tremendous sacrifices they make daily to defend our homeland and safeguard our security. We are committed to providing healthy installations, facilities, housing and the supporting services that enhance morale, Quality of Life and Quality of Service that are critical factors in our readiness posture.

History has proven that we cannot narrowly define the conditions for which our military must be ready. With little warning, our Nation has repeatedly called its Corps front and center—in the southern Pacific after Pearl Harbor, in Korea after the communist invasion in 1950, in the mountains of Afghanistan after 9/11, and in southern Asia in the wake of the catastrophic tsunami of 2004. Each of these strategic surprises demonstrates the broad range of possibilities for which the Marine Corps must be prepared. The Long War requires a multi-dimensional force that is well trained and educated for employment in all forms of warfare. Historically, our Corps has produced respected leaders who have demonstrated intellectual agility in warfighting and the ability to convince their Individual Marines that they put them first, above all else.

The various programs discussed in this section are vitally important to the Marine Corps. They are fundamental to the combat readiness of Marine Corps operating forces, and are integral to the Quality of Life and of Service of Individual Marines and their families. These programs are designed to ensure that Marines and their families are taken care of in the areas of recruiting, training and education, retention, pay and administrative support, quality of life and service, and family support.

MANPOWER RECRUITING

Fiscal year 2007 proved to be one of the most challenging years for Marine Corps Recruiting Command (MCRC) in recent history. The impact of The Long War and the unique challenges it presented to the recruiting force combined with the demand to recruit more young men and women than anticipated in support of end strength increases tested the mettle of the recruiting force. In every case our recruiters rose to the challenge and accomplished the mission.

Recruiting is the lifeblood of our Corps. The credit for our success belongs to the individual Marine recruiter, whose tireless efforts and dedication to mission continues to provide the Marine Corps with a new generation of warriors. It is the individual recruiter who inspires applicants to pursue life as a United States Marine, who once transformed, will be a Marine for life. Our Corps' recruiters remain ambassadors to their local communities and to the American public.

Recruiting duty is unique and highly selective. Those chosen to become recruiters undergo extensive screening and are considered representative of the best the Marine Corps has to offer. Intensive training ensures that the recruiter is well-prepared to face the multi-faceted challenges that lay ahead. Our training is continuously reinforced, ensuring that the recruiter remains armed with the most current information, techniques and policies.

One of the key elements to ensure our recruiters and Officer Selection Officers (OSO) are prepared to succeed is the automation of the recruiting process at the Recruiting Sub-Station (RSS) and Officer Selection Station (OSS) level. Marine Corps Recruiting Information Support System (MCRISS) is the information technology software application used by MCRC to track applicant processing. In order to speed the sharing and processing of applicant information, and optimize recruiter and OSO time, MCRIS-RSS/OSS is being developed for interface with MCRISS.

The manpower data entry point for most of the Marine Corps' Manpower Information Systems is MCRISS. Daily interfaces permit users to quickly and accurately create training and personnel records on Marines. Additionally, MCRISS is linked with the United States Military Entrance Processing Command (USMEPCOM) as it continues to evolve and transform applicant screening and processing into the Virtual Interactive Processing System (VIPS). Future MCRISS enhancements are required to replicate data throughout the recruiting process and automate data exchange with multiple entities.

Ensuring young men and women hear and understand the recruiting message requires continual reinforcement through marketing and advertising programs. To do this we continue to emphasize our core competencies of building brand awareness, generating quality leads for recruiters, and developing recruiter support material for them to use in the sales process. High-quality advertising provides the foundation for establishing awareness about Marine Corps' opportunities.

Paid advertising proves to be the most effective means to communicate our message and, as a result, remains the focus of our advertising efforts. As advertising costs continue to increase, it is imperative that our advertising budgets remain competitive in order ensure that our recruiting message reaches the right audience. Marine Corps recruiting successes over the past years are a direct reflection not only of a quality recruiting force, but also of an effective and efficient marketing and advertising program.

In fiscal year 2007, MCRC overcame unprecedented challenges in recruiting during our support of The Long War, achieving 100 percent of enlisted shipping objectives. Most noteworthy was the fact that, despite an increased mission, MCRC exceeded all quality standards: 95.4 percent of those shipped to recruit training were Tier 1 high school graduates, above the Department of Defense (DoD) and Marine Corps standards of 90 and 95 percent, respectively. In addition, 66.2 percent were in the I-IIIA upper mental group, also well above the DoD and Marine Corps standards of 60 percent and 63 percent, respectively. For officers, 100 percent of objectives in all categories were achieved. The Marine Corps Reserve also achieved 100 percent of its recruiting goals with the accession of 5,287 Non-Prior Service Marines. Of these, 95.9 percent were Tier I high school graduates and 73.4 percent were in the I-IIIA mental groups. Additionally Marine Corps recruiting command accessed 3,591 Prior Service Marines into the Marine Corps Reserves, achieving 100 percent of the objective.

The culmination of the fiscal year 2007 recruiting effort ensured that MCRC added to their legacy of success. In fiscal year 2008, as the Marine Corps continues to grow and our operational forces remain committed in support of The Long War, MCRC expects to face ever-increasing challenges. In the face of these challenges the command fully expects to continue to meet the challenge and accomplish our part to ensure that our Corps is able to respond "where our country needs us most."

MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM – RECRUITING SUB-STATION (MCRISS-RSS) & OFFICER SELECTION SYSTEM (MCRISS-OSS)

DESCRIPTION

The deployment of the Marine Corps Recruiting Information Support System – Recruiting Station (MCRISS-RS) streamlines the entire enlistment process and provides immediate benefits in man-hour savings by eliminating redundant data entry and improving the quality of information available. Moreover, the system directly interfaces with and supports key information technology initiatives from the U.S. Military Entrance Processing Command by electronically scheduling applicants for processing and receives electronic processing results. MCRISS-RS harnesses state-of-the-art technology and provides the Marine Corps Recruiting Command with a solid foundation from which to grow future manpower information systems such as MCRISS-Recruiting Sub-Station (RSS) and MCRISS-Officer Selection System (OSS).

The development and deployment of MCRISS-RSS/OSS promises to automate both the officer and enlisted side of recruiting by organizing every effort and providing the proven framework of systematic recruiting. Systematic recruiting establishes procedures for standardization, management/planning, training, and action by focusing the Officer Selection Officer, RSS Senior Non-Commissioned Officer In Charge and recruiter on those activities and programs vital to effective recruiting. MCRISS-RSS will encompass all eleven components of enlisted systematic recruiting while MCRISS-OSS will encompass the fourteen components of officer systematic recruiting. This effort will further eliminate redundant data entry and save the most valuable asset....time.

OPERATIONAL IMPACT

Time is the recruiter's (officer or enlisted) greatest challenge and most precious asset. A recruiter's achievement and success is only measured by the number of qualified quality individuals interviewed, contracted and shipped to Recruit Training or the Officer Candidate Course. MCRISS-RSS/OSS, coupled with solid skills, will systematically organize the recruiter's day, week, and month, thereby saving time and making the demanding task of "mission accomplishment" more efficient and effective. This in turn gives the recruiter more time to prospect, consequently giving the Marine more opportunity to succeed.

PROGRAM STATUS

Achieved IOC in fiscal year 2007

Procurement Profile:	FY2008	FY2009
MCRISS-RSS	0	11
MCRISS-OSS	0	14

Developer/Manufacturer:
Stanley Associates, Arlington, VA

Subcontracts: Segue Technologies, Arlington, VA & Tedrad Digital Integrity, Washington, D.C. & Firefly Database Solutions Inc., Nokesville, VA

MANPOWER PERSONNEL & PAY MANAGEMENT

The Marine Corps continues to transform our manpower processes by exploiting the benefits of the Marine Corps Total Force System (MCTFS), the Department of Defense's only fully integrated personnel, pay, and manpower system. The Marine Corps Total Force System seamlessly serves our active, reserve, and retired members; provides total visibility of the mobilization and demobilization process of our Marines; and ensures proper and timely payments are made throughout the process. MCTFS provides one system, one record, regardless of an individual's mobilization status. According to the most recent Defense Finance and Accounting Service's "Bare Facts" report, MCTFS continues to achieve a pay accuracy rate of over 99% for both our active and reserve components.

MCTFS has allowed the Marine Corps to move its pay and personnel administration to a predominately self-service, virtually paperless, secure, web-based environment. In fiscal year 2007, individual Marines and their leaders leveraged MCTFS' capabilities to automatically process more than 1.6 million transactions, including over 87% of our annual leave events. MCTFS integrated business logic coupled with Marine OnLine's web-based capabilities has increased the amount of time Marine leaders can devote to warfighting.

MARINE CORPS RETENTION

ENLISTED PERSONNEL

We continue to retain Marines at unprecedented levels in order to grow the Marine Corps' end strength to 202,000. Retention goals were substantially increased in mid-fiscal year 2007 and will continue to increase through fiscal year 2011 to support the continued growth of our force. The dynamics of the Corps' manpower system must match the required skills and grades to stand up and staff additional units to enable a 1:2 deployment-to-dwell time ratio.

The Marine Corps' enlisted retention efforts remain vigilant due to the lucrative civilian employment opportunities that exist for our Marines. Our Corps has traditionally retained 25% of first-term Marines to sustain the career force. In fiscal year 2007, this requirement was raised to 34% of first-term Marines to support the yearly end strength milestone of 184,000. The fiscal year 2007 milestone was eclipsed by 2,490.

For fiscal year 2008, we must retain 41% of our first-term Marines and 74% of our career Marines to support the fiscal year 2008 end strength milestone of 189,000. For this reason, the budget for the Selective Reenlistment Bonus (SRB) program was substantially increased and proportioned towards our career force, including Marines with 16 to 20 years of active service.

Because combat experience and MOS proficiency remains essential to the future of our Corps, every effort must be made to retain our "best and brightest" Marines by seeking continued funding for the SRB in future years. The SRB has significantly aided reenlistment endeavors and has improved retention for some critical skill shortages. However, due to the creation of new operational units, shortages persist in some specialties, such as intelligence, explosive ordnance disposal, reconnaissance, combat engineering, and military police, proving the importance of continued increases in SRB funding levels.

To meet the demands of our aggressive retention goals, our retention and personnel assignment policies are evolving to meet the demands for a growing force. Traditional policies that were focused on maintaining a stable end strength are now unnecessary and are being adjusted. As such, boatspace limits for first term Marines were lifted in fiscal year 2007 and remain so for fiscal year 2008. Various forms of Assignment Incentive Pay (AIP) are also being introduced to encourage continued assignment of experienced NCOs in the operational forces. Likewise, some assignments aboard bases and stations are being adjusted from three to two years to allow more Marines and their families a respite from deployments.

Though the SRB program is greatly enabling our retention success, we cannot disregard the intangible attributes, such as pride of service and the satisfaction of leadership responsibilities, as significant influences on retaining dedicated men and women. It is the responsibility of all leaders within the officer and enlisted ranks to ensure Marines are educated on the importance of retention and on our evolving retention policies and incentives. Leaders must continue to reinforce these

intangible attributes and encourage Marines not to make career decisions based on the current operational tempo.

OFFICERS

The Marine Corps officer retention goal is to retain the "best and fully qualified" officers, in the right grades, with the right skills to provide the capabilities required in the operating forces. Historically, the aggregate officer retention rate is 90.5 percent. For fiscal year 2008, the Marine Corps is on pace to meet or exceed its retention goals within the officer corps. Regardless, Manpower planners continue to look for indicators showing a trend toward higher attrition in future years. Although overall officer retention is excellent, shortages do exist in certain grades and skills, requiring careful management and innovative solutions.

To this end, the Marine Corps has active programs in place, both monetary and non-monetary, to ensure officer retention remains high. Monetary tools already implemented include Aviation Continuation Pay and Law School Education Debt Subsidy. Non-monetary programs include voluntary lateral moves, inter-service transfers to the Marine Corps, and Return to Active Duty. All of these programs provide incentives to officers for continued service even in the face of significant operational tempo, while allowing flexibility to manpower planners to meet requirements across the Marine Corps Total Force.

MARINE CORPS RESERVE

Marine Corps Reserve units, Individual Ready Reserve (IRR) Marines, and Individual Mobilization Augmentees (IMA) continue to fill critical requirements of national defense. They have deployed worldwide to countries in Southwest Asia as well as Northern Africa supporting all aspects of the Global War on Terrorism. At home, Marine Forces Reserve maintains Reserve Marines and assets pre-positioned throughout the country, ready to assist with not only national defense missions, but also civil-military missions such as providing disaster relief.

The Selected Marine Corps Reserve, with its force structure complementing the active operating force in its traditional "augment and reinforce" mission, continues to serve the nation well. The Reserve Component is wholeheartedly oriented to that mission and keen on doing its part in times of distress. However, we are conscious of how changes in key drivers, such as the Quadrennial Defense Review, the Marine Corps' Capabilities Assessment Group, recent operational employment patterns and service expectations of the members of our Reserve, are bound to demand adjustments in Reserve missions and roles.

RESERVES IN ACTION

Reserve Marines understand the cost of protecting the American way of life, and even though some have paid the ultimate price, they continue to step forward and volunteer to serve their country. The Marine Corps Reserve remains strong and constant due to the committed Marines in our ranks, our high retention and recruiting rates, and the ever-increasing benefits that Reserve Marines and their families enjoy.

SUSTAINMENT

Despite the current high operational tempo, the Marine Corps Reserve continues to recruit and retain top-notch Marines. New Marines are consistently brought into the Reserves at a rate of 20-25 percent per year. This, in addition to our current force, provides continued capability to augment and reinforce the Active Component.

As the Active Component increases end-strength to 202,000 by fiscal year 2011, it is important to note that higher planned retention in the Active Component and greater numbers of Marines from the Reserve Component volunteering for full-time active duty with the Active Component, will reduce the number of personnel transitioning into the Selected Marine Corps Reserve. To avoid the potential impact of recruitment conflict, the Marine Corps Reserve is aggressively pursing options to increase retention in Selected Marine Corps Reserve units by increasing the number and dollar amount of reenlistment incentives focusing on units identified for future deployment.

CONCLUSION

The Marine Corps Reserve is a full partner of the Marine Corps' Total Force Concept. Reserve Marines continue to

prove their dedication to their country and fellow citizens. Their continuing Honor, Courage, and Commitment to warfighting excellence while maintaining close ties to their community truly set them apart as "citizen soldiers." They recognize they have a crucial mission, and the American people will continue to expect the most from them while continuing to support them. Marine Forces Reserve, with its well-equipped, well-led, and well-trained professional men and women, will be integral to the Marine Corps of the future.

CIVILIAN MARINES

Civilian Marines are a valuable asset to our Total Force team. Marines at all ranks recognize, more than ever before, the importance of our Civilian Marines, who provide critical support in numerous areas throughout the Corps.

The "Civilian Workforce Campaign Plan" (CWCP), serves as a strategic roadmap to achieve a civilian workforce capable of meeting challenges of today and the future. The campaign plan cites six goals that touch upon the entire lifecycle of the Civilian Marine. The CWCP will continue to provide the strategic cornerstone for management and professional development. It amplifies the importance of leadership development and overall contribution to the effectiveness and cohesiveness of our military-civilian team.

In direct support of the CWCP, the Civilian Workforce Development Application (CWDA) was designed to assist the Marine Corps in managing workforce development activities. A web application, CWDA contains data related to the leadership and functional core competencies of the Communities of Interest. The long term vision for CWDA is that it will facilitate organizational management and design and workforce shaping.

Also in support of the CWCP, the Marine Corps Acculturation and Mentoring Programs are available. The Acculturation Program provides Civilian Marines with the opportunity of understanding their roles in supporting the mission of the Marine Corps. Specifically, Civilian Marines learn the Marine Corps' culture and history while also concentrating on the strategic mission of local commands.

The Civilian Marine Mentoring Program is part of our Civilian Career and Leadership Development program. It enhances our ability to transform our civilian workforce into a high performance culture providing a skilled capable workforce to face the challenges of the future.

The expertise and competency of Civilian Marines will continue to provide critical contributions to the success of our Total Force Team, and the Marine Corps is committed to their continued development. Through implementation of the CWCP, we are providing civilian Marines with a work environment that encourages personal growth and professional development, recognizes and rewards high performance, and promotes retention.

The Marine Corps is committed to implementing the National Security Personnel System (NSPS) along with other Department of Defense and Department of Navy agencies. The NSPS offers broad pay bands and flexible civilian workforce management tools necessary to effectively and efficiently recruit, retain, and manage our Civilian Marines in support of our mission. The NSPS enables us to align job objectives to mission; improves the quality of our workforce through ongoing performance feedback; provides greater flexibilities to reward excellent performance with salary increases; simplifies our personnel hiring processes; and offers other flexibilities to enhance our organizational effectiveness to foster the high

performance culture in our CWCP.

The Marine Corps converted its first group of 1,982 Civilian Marines to NSPS in January and February 2007 from Headquarters Marine Corps, Marine Corps Systems Command, and Marine Corps Tactical Systems Support Activity. In February 2008 the Marine Corps converted 4,100 additional non-bargaining unit General Schedule employees across all remaining Marine Corps organizations, including overseas and field activities.

ADVISOR TRAINING PROGRAM INITIATIVES

Since early 2006, the Training and Education Command's (TECOM) Security Cooperation Education and Training Center (SCETC) has been involved in a dramatic build-up to formalize the partner-military advisor training process. This has encompassed creating a standards-based predeployment training construct, stand-up of a training support cadre, enhancements to training equipment sets, and development of related resources and funding for immediate operations, sustainment and support for emerging requirements.

With the January 2006 Executive Off-Site decision to formalize the advisor training process, SCETC was the lead in providing near-term predeployment training relief to the Marine Expeditionary Forces (MEF) - specifically, the Block IV (advisor-specific) portion of the Predeployment Training Plan (PTP). The SCETC Advisor Training Group (ATG) was established in early 2007 as the permanent training cadre at the Marine Air Ground Task Force Training Command (MAGTFTC) tasked with executing predeployment training for all Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) Transition Teams at MAGTFTC, the Mountain Warfare Training Center (MWTC), Bridgeport, CA., and Hawthorne Army Deport (HAWD), Hawthorne, NV. On 1 October 2007, in an effort to enhance training effectiveness and requisite support for Transition Teams, the ATG was transferred from SCETC and TECOM to MAGTFTC.

The process of formalizing Transition Team training began with a January 07 Proof of Concept at MAGTFTC that validated the early Program of Instruction and requisite resources, with training initially built around a 25-day plan. During October 2007, OIF training transitioned to a 19-day cycle that builds upon the MEF-level (Home Station) preparation, with a training construct that attempts to culturally immerse teams in a series of training engagements that emphasize scenario-based events and extensive use of role players. Exercise Mountain Viper is the Block IV training for all OEF Embedded Training Teams (ETT), encompassing a 21-day training evolution, culminating in a Mission Rehearsal Exercise (MRX) and Assessment of team capabilities. The inaugural Mountain Viper 01-07 was completed in May 2007, and included training at MAGTFTC, MWTC, and HAWD.

In order to effectively prepare all OIF and OEF Transition Teams and prepare Marines to be advisors, greater emphasis is placed on the train, mentor, and advise concept, with training scripted to incorporate mission-specific or team-type training (Military, Police, Border, and Embedded). The concept of operations allows for counterpart training, whereby events and situations focus on Division, Brigade, and Battalion advisor teams. All training culminates in an MRX and Assessment spanning several days that is utilized to evaluate the advisor capabilities of the teams while allowing the teams

to gain final validation of their Tactics, Techniques, and Procedures and team building opportunities.

Between June and December 2007, the Advisor Training Group trained over thirty Transition Teams in what was a period of implementation and revision as an element in the process of formalizing advisor training. For fiscal year 2008, the ATG is slated to train an estimated seventy-two teams consisting of over 1400 Marine advisors.

COLLEGE OF CONTINUING EDUCATION (CCE)

The College of Continuing Education (CCE), Training and Education Command, is the institution within the Marine Corps that is responsible to design, develop, deliver, evaluate, and manage distance learning products and programs across the training and education continuum, in order to increase operational readiness. As the service proponent for distance learning, the CCE is responsible for and manages the Marine Corps Distance Learning Program (MCDLP) as well as the non-resident, Command and Staff College Distance Education Program (CSCDEP) and the Expeditionary Warfare School Distance Education Program (EWSDEP) professional military education (PME) programs of study. Effective 1 June 2007, the CCE assumed administrative responsibility from the Marine Corps Institute (MCI) for student administration, registration, delivery of course materials, and processing of grades for CSCDEP and EWSDEP students.

Within the MCDLP, MarineNet is the Marine Corps' electronic training infrastructure that hosts more than 2,500 electronic courses, available worldwide 24/7 to active, reserves, retired, family members, and the civilian workforce. The courseware, available at no cost to those enrolled in the Defense Eligibility Enrollment Services, is built collaboratively with the Marine Corps Training & Education Centers of Excellence and military occupational specialty (MOS) subject matter experts. Annual and required training, professional development, and functional specialty training may be accomplished on MarineNet in additional to completing PME courses. Linked to MOS roadmaps to facilitate career progression, MarineNet courseware expedites the training process by granting rapid online course enrollments and online test completion. Test scores are available immediately and students are able to print courseware completion certificates online. Student activity is electronically entered into the Marine Corps Total Force System (MCTFS) via the Marine Corps Training Information Management System (MCTIMS) database providing promotion points, self education bonus points and Reserve retirement credits. Additionally, MCDLP provides installation-based computer learning resource centers (LRCs), deployable learning resource centers (DLRC) designed for deployed units, and video teletraining/video conferencing suites for synchronous connectivity to multiple locations.

As the institution responsible for development and delivery of the CSCDEP and EWSDEP, the CCE administers the program via eight (8) satellite campuses distributed across the Marine Corps enterprise. Our distance education curricula are delivered via regionally sponsored seminars utilizing both resident adjunct faculty and the latest in video technology. Starting in October 2007, all CSCDEP students participate in seminars, either on-site or asynchronously online. For the near term, EWSDEP will remain independent guided studies-centric with a seminar option. Students are provided weekly evening and weekend seminars that meet

either on local Marine Corps installations or at designated civilian establishments. The EWSDEP seminars are available to all enrolled officers and senior staff noncommissioned. Local Regional Coordinators support students with enrollment request via MarineNet, deliver curriculum courseware, and administer test, as required. Adjunct faculty members serve as seminar leaders and provide students with a Socratic learning environment that emphasizes peer to peer interaction. Completion of CSCDEP and EWSDEP is equivalent to resident completion for promotion and assignment purposes.

Contact for local Regional Coordinators may be obtained at http://www.tecom.usmc.mil/cce or call toll free 1 800 4DL.USMC or DSN 995-6720 and select option 2.

COMBAT VEHICLE TRAINING SYSTEM (CVTS) – M1A1/LIGHT ARMORED VEHICLE (LAV) -25/ASSAULT AMPHIBIOUS VEHICLE (AAV)

DESCRIPTION

The Combat Vehicle Training System (CVTS) – M1A1/Light Armored Vehicle (LAV)-25, also known as the Advanced Gunnery Training System, will provide a high fidelity, gunnery, and networked tactical trainer that satisfies both land-based and shipboard training requirements for the LAV-25 and M1A1. The CVTS will provide integrated, coordinated, and mission-oriented training of crew members at individual, full-crew, section, and platoon positions. The CVTS-AAV or AAV Turret Trainer (AAV-TT) will provide the same capability as the CVTS land-based systems.

OPERATIONAL IMPACT

CVTS is one element of a training system made up of the academic, simulations and live-fire/range training. The Marine Forces Reserves, Marine Forces Pacific, Marine Forces Command, and formal schools will use the CVTS family of trainers to train perishable gunnery, crew communication and coordination, and mission tactic skills up to the platoon level. CVTS will provide familiarization, proficiency, sustainment, and cross-training at each crew position and as a crew.

PROGRAM STATUS

The CVTS-M1A1 has 16 land-based trainers already fielded with eight shipboard trainers scheduled to be fielded in late fiscal year 2008. The CVTS-LAV is fielding 20 land-based trainers which began in October 2006 and 17 shipboard trainers in late fiscal year 2008. The CVTS-AAV or AAV Turret Trainer also began fielding 16 trainers in Februrary 2006.

Procurement Profile: Quantity:	FY2008	FY2009
M1A1 DAGTS	16	0
DAGTS	20	0
LAV-25 DAGTS	12	5
DAGTS	25	0
AAVTT	1	0

Developer/Manufacturer:
M1A1 and LAV-25: Lockheed Martin Simulator Training Systems

AVV TT: TJ Incorporated

COMBINED ARMS COMMAND AND CONTROL TRAINING UPGRADE SYSTEM

DESCRIPTION

The Combined Arms Command and Control Training Upgrade System for the Combined Arms Staff Trainer (CAST) will provide realistic command-and-control integration and fire support coordination training for Marine Air-Ground Task Force (MAGTF) staffs up to, and including, the Marine Expeditionary Brigade level and integration MAGTF training with Joint National Training Capability Training Transformation events.

OPERATIONAL IMPACT

This CAST upgrade will support the training required to prepare Marine Corps units to participate in pre-deployment live-fire training, particularly Mojave Viper exercises held at MAGTFTC 29 Palms, CA, by providing the most effective classroom training and pre-Mojave Viper rehearsal opportunities prior to arrival.

PROGRAM STATUS

In fiscal year 2006, contracts were awarded to continue prototype development and Phase 1 installation. Phase 1 installations consisting of facility electrical and network infrastructure upgrades to support the reconfigurable virtual communication systems.

Procurement Profile:	FY2008	FY2009
Quantity:	0	5

Developer/Manufacturer:
Cole Engineering Services Inc, Orlando FL

COMBINED ARMS MILITARY OPERATIONS IN URBAN TERRAIN (CAMOUT) TRAINING FACILITY

DESCRIPTION

The Combined Arms Military Operations in Urban Terrain (CAMOUT) Training Facility is a 900 acre training complex at Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, CA. It incorporates 1500 structures and sub-terrain features emplaced in geo-typical districts replicating the complexity of a city. Structures within each district are of multi-story and multi-configuration designs appropriate to the represented district and built of conventional construction, fabricated shipping containers and pre-fabricated modular buildings. Data and communication infrastructures and instrumentation of the Range Modernization and Transformation and Combined Arms Command and Control Trainer Upgrade System programs are leveraged to facilitate conduct of the future Marine Air Ground Task Force Training Center Large Scale Exercise as well as Joint National Training Capability for Training Transformation.

OPERATIONAL IMPACT

The CAMOUT provides maneuver, live-fire, and non-live fire training space for Marine Expeditionary Brigade and below echelons in urban operations.

PROGRAM STATUS

In fiscal year 2006 and fiscal year 2007, Military Construction and Procurement contracts were awarded to perform preliminary design, construction and installation of the Primary Town district and Indirect Fires components. Award of effort to instrument CAMOUT with advanced video technologies is anticipated to occur during first half of 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	TBD	TBD

Developer/Manufacturer:
Allied Container Systems, Onyx Group, Soltek Pacific, others pending procurement awards.

DEPLOYABLE VIRTUAL TRAINING ENVIRONMENT (DVTE)

DESCRIPTION

The Deployable Virtual Training Environment (DVTE) is a first person skills sustainment trainer that trains Marines from the individual to battalion staff level by using a simulation network with reconfigurable workstations capable of emulating a vast array of training scenarios. DVTE is made up of two components; the first is the Infantry Tool Kit which contains several Tactical Decision-making Simulations. The other half of DVTE is the Combined Arms Network (CAN). This is a set of personal computer based simulators (Forward Observer, Forward Air Controller, Assault Amphibious Vehicle, M1, Light Armored Vehicle, AH-1) connected to Joint Semi Autonomous Force. PMTRASYS recently accepted delivery of the CAN Version 1.0 which connects to AFATDS and Strikelink to allow training of a variety of fire support platforms using Marine Corps gear. Individual MAGTF skills can be trained in this virtual environment using a semi-autonomous force model as its basis. DVTE responds to the need for a flexible, deployable, training system that provides combined arms, MAGTF and Naval Integration training.

OPERATIONAL IMPACT

Training objectives for DVTE are currently being matched up with standards in the Predeployment Training Program as well as the Infantry Training and Readiness Manual. DVTE uses programs such as Virtual Battle Space to train Marines on everything from command and control to convoy standard operating procedures. Marines can also meet specific cultural and language training objectives using programs like Tactical Iraqi. Lastly, units can train all aspects of combined arms using the CAN. The CAN uses actual Marine Corps gear such as an AFATDS, Strikelink, and PFED to communicate call for fire. Marines will be able to meet and sustain a wide variety of training objectives either in garrison or deployed. DVTE meets a much needed training requirement for many areas where there were few options for training. The end state is for Marines to be able to conduct standards-based training in a simulated environment while in garrison or deployed.

PROGRAM STATUS

Initial fielding of 38 DVTE suites was successfully completed in fiscal year 2007 with 11 suites going to I and II MEF, four suites to III MEF, and 12 suites going to various schoolhouses. Fielding down to the battalion level will be complete by the end of fiscal year 2008. The CAN is scheduled for fielding with DVTE suites beginning in June of 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	54	20

Developer/Manufacturer:
Lockheed Martin, Burlington, MA, Alion/ BMH, Norfolk, VA

DISTANCE LEARNING (DL)

DESCRIPTION

Distance Learning (DL) (known as MarineNet) is the Marine Corps E-Learning Infrastructure that enables Marines to receive training and education via the appropriate interactive media, when and where the learning is needed. DL provides access to learning resources and performance support tools to a greater population of Marines. DL increases the effectiveness of training and education through use of technology. DL consists of commercial-off-the-shelf hardware and software that runs on the Navy Marine Corps Intranet (NMCI)/Marine Corps Enterprise Network. Various DL suites have been fielded to major Marine Corps bases and stations. DL components are as follows:

- Content Delivery Engines (Network Appliances that host content)
- Centralized Learning Management System for Student Administration
- Learning Resource Centers (LRC)
- Video Teletraining Training Centers
- Deployable Learning Resource Centers (DLCR)

OPERATIONAL IMPACT

DL contributes to the Marine Corps' operational readiness by providing all Marines with access to military occupational specialty and common skills training opportunities and Professional Military Education. DL capabilities fill critical gaps in the training and education continuum and can reduce the amount of time Marines are required to be away from their home duty station attending formal training. DL gives the commander a better-trained Marine while increasing personnel availability to accomplish the unit's mission.

PROGRAM STATUS

Three new LRCs will be installed in fiscal year 2008

Procurement Profile:	FY2008	FY2009
Quantity: LRCs:	3	2
Quantity: DLRCs:	0	27

Developer/Manufacturer:
NMCI Seats and Marine Corps Common Hardware Suite (MCHS) using multiple vendors.

HOMESTATION MILITARY OPERATIONS IN URBAN TERRAIN (MOUT) TRAINING SYSTEMS

DESCRIPTION

Homestation Military Operations in Urban Terrain (MOUT) Training Systems consist of integrated structures, sniper towers, sub-terrain features, and convoy training routes in geo-typical configurations to replicate the complexity of urban areas and small cities. Structures are multi-story and multi-configuration designs predominantly built of fabricated shipping containers.

OPERATIONAL IMPACT

Homestation MOUT Training Systems provide maneuver, live-fire, and non-live fire training spaces for Marine Air Ground Task Force Marine Expeditionary Unit and below urban operations to accomplish Level I, II, and V Predeployment Training.

PROGRAM STATUS

In fiscal year 2006 and fiscal year 2007, multiple procurement contracts were awarded to perform installation of the Homestation MOUTs according to installation plans and unit training requirements. A Marine Corps wide contract is anticipated to be awarded during 2008 meeting Homestation MOUT non-live fire and live fire requirements during the next five years. Award of effort to instrument Marine Corps MOUTs with advanced video technologies is anticipated to occur during first half of 2008.

Procurement Profile:
Fiscal year 2008-2009 efforts will continue to build out Homestation MOUTs to meet urban training requirements accomplishing the current and future Marine Corps Predeployment Training strategy.

Developer/Manufacturer:
Allied Container Systems, Anteon, Ballistics Technology Inc., others pending procurement awards.

INDOOR SIMULATED MARKSMANSHIP TRAINER – ENHANCED (ISMT-E)

DESCRIPTION

The Indoor Simulated Marksmanship Trainer – Enhanced (ISMT-E) and the Infantry Squad Trainer – Enhanced (IST-E) are three dimensional simulation based trainers for indoor use, capable of instructing in basic and advanced marksmanship, shoot/no-shoot judgment, combat marksmanship, and weapons employment tactics. The trainer consists of an Instructor Station, audio/visual system, and weapons firing positions. Each firing position is capable of operating simulated weapons that includes simulated AT4, M2 (.50 cal), M9, M16s, M240G, M203, MK19, MP5, Squad Automatic Weapon, M870 12 gauge shotgun, Shoulder launched Multipurpose Assault Weapon, M224 60mm Mortar, M252 81mm Mortar, M4s, Short Range Anti-tank Weapon (Predator), and Joint Services Combat Shotgun. The ISMT-E has four firing positions. The IST-E consists of three ISMT-E trainers connected as a single system providing fifteen firing positions. A large display device provides simulated targets. The simulated weapons fire upon the simulated targets with an indication of the round fired provided as feedback. The Instructor Station controls the training and provides feedback of the results. ISMT-E/IST-E devices also provide Forward Observer Spotting/Control of indirect fire and night vision training capabilities in addition to the baseline combat and marksmanship training features. Additionally, the ISMT-E provides night vision and optical training for various weapon sights (both magnified and non-magnified), NV devices, and aiming lights. The optics training feature wireless weapon simulators and is focused on M16A4, M4A1, M203, M249G, and M240G weapon systems.

OPERATIONAL IMPACT

The Marine Corps has 580 ISMT systems and over 13,000 simulated weapons located within the Continental United States (CONUS) and Outside CONUS at major Marine Corps Bases, Reserve Centers, and at embassies worldwide. The system is used at schoolhouses, recruit depots, Weapon Training Battalions, Reserve units, LPD-17 class ships, and various Marine Corps units to train Marines infantry squad training, collective skills training, and indirect fire training.

PROGRAM STATUS

The ISMT-E is completing a major system upgrade that includes new processors and added optics training (ACOG, AN/PVS-7B/D Night Vision Goggles, AN/PVS-14 Monocular Night Vision Device, AN/PVS-17B/C Mini Night Vision Sight, AN/PSQ-18A Grenade Launcher, and AN/PEQ-2A Infrared Aiming Light) capability. New initiatives include enhanced training for moving targets, crew served weapon using turret ring mounts, threat weapons, and sensored M16A4 simulated weapons.

Procurement Profile:	FY2008	FY2009
Quantity:	TBD	TBD

Developer/Manufacturer:
TBD

MARINE AIR GROUND TASK FORCE (MAGTF) TACTICAL WARFARE SIMULATION SYSTEM (MTWS)

DESCRIPTION

The MAGTF Tactical Warfare Simulation System (MTWS) is the Marine Corps' only aggregate level simulation system designed to support training of commanders and their staffs during exercises involving live and simulated land, air, and maritime forces at all operational command levels. MTWS can be used as a multi-sided war game, including red, blue, civilian, and non-aligned sides. MTWS incorporates a full spectrum of combat models including: Ground Combat, Air Operations, Fire Support, Maritime Operations, Combat Engineering, Intelligence, Logistics, and Nuclear, Biological and Chemical

OPERATIONAL IMPACT

MTWS meets USMC Title X service training needs for operational staff planning and training on C2 processes and procedures. MTWS uses realistic warfighting scenarios in a simulated environment to provide training, analysis, mission planning and rehearsal to commanders and their battle staffs. A comprehensive After-Action Review (AAR) toolkit within MTWS provides the capability to record exercise events, conduct playback and review, and assist in developing/assessing new tactics, techniques, and procedures. MTWS' High Level Architecture interface will allow MTWS to integrate with existing high-resolution Joint simulation models and incorporate that additional functionality to further enhance training. The MTWS C4I interface affords the training audience the ability to interface with the simulation using the same C4I systems they will use in conflict.

PROGRAM STATUS

MTWS was re-instated as a program of record with RDT&E funding resuming in fiscal year 2006.

Procurement Profile:	FY2008	FY2009
Quantity:	1	1

Developer/Manufacturer:
L3-Titan, San Diego, CA

MARINE CORPS TACTICS AND OPERATIONS GROUP (MCTOG)

As directed in the CMC initial planning guidance, the USMC has established a specialized organization to provide standardized training and instructor qualifications for the Ground Combat Elements (GCE). The Marine Corps Tactics and Operations Group (MCTOG), located at the Marine Air Ground Task Force Training Center (MAGTFTC) in Twenty Nine Palms, California, will reach an initial operating capability by spring of 2008 and a full operating capability by spring 2009. The MCTOG will accomplish its assigned mission through the development and implementation of a GCE Operations and Tactics Training Program (GCE OTTP).

The mission of MCTOG is to provide advanced training in MAGTF operations, combined arms training and unit training management and readiness at the battalion and regimental levels, and to synchronize doctrine and training standards for the GCE in order to enhance combat preparation and performance of GCE units in MAGTF operations.

CMC intent for the activation of MCTOG and the establishment of the GCE OTTP is to optimize the GCE unit's preparation for and performance in combat by providing focused, advanced instruction of key individuals of the battalion and regimental staff in combined arms operations; to directly enhance and positively influence GCE-wide unit training programs and capabilities that support combined arms operations; and to assist with the identification and vetting of GCE-specific training requirements and deficiencies.

The MCTOG will be a multi-functional organization that must rapidly and continuously extract, evaluate, and integrate the emerging concepts, best practices, and evolving threats into a dynamic operations and tactics training program to facilitate the GCE unit's combat success on the contemporary and future battlefield. In developing the detailed GCE OTTP, the MCTOG will coordinate closely with both the training and education community and the operational forces to ensure that the program is the most representative, relevant, and dynamic that it can be.

The MCTOG, through the institutional establishment of the OTTP, will be organized to accomplish its mission. The OTTP is implemented and executed at three levels:

First, the centerpiece of the OTTP, is the resident course that is specifically designed to provide the advanced, focused instruction of the key individuals of the GCE battalion and regiment. By attending the course, the key individual is prepared to return to his unit as an Operations and Tactics Instructor (OTI) who develops and implements training plans and programs to prepare the GCE unit for combat operations. The OTI program includes an officer designation, a gunner designation, and an operations and fires chief designation.

The second tier of the OTTP is the operational force support program that is specifically focused on assisting individuals and units in the accomplishment of

organizational training requirements at the battalion and regimental level. The operational force support program consists of a wide variety of training products, programs, and assistance endeavors, as requested and tailored by the assisted unit. The heart of the program is the currency of the established training standards and best practices, and the exportability of the base OTI curriculum, scenarios and simulation process.

- The final aspect of the OTTP is the wide variety of institutional support functions that the organization services in reference to the GCE and TECOM. In this respect, the MCTOG will also play a critical role in the development, implementation, and integration of emerging concepts and best practices into existing doctrine and standards, in addition to assisting with the transitioning of emerging technologies to operational units (DO, SSTR, etc).

The target audience for the resident course is the operations team at the battalion and regimental level. The central candidates are the Operations Officer, Ast/Future Operations Officer, Fire Support Coordinator, Operations and Fires Chiefs, and the Gunner. The course provides individual instruction and certification, as well as an understanding of effective operations team functioning. The central purpose of the course is to bridge the gap between the academics and limited applications of the formal school system to the technical and detailed applications of proficient unit planning, training, and operations. The course prerequisites are career level school graduate for all officers, IOCC or appropriate operations chief course graduate for SNCOs, and CWO3/4 for the gunner. The most significant pre-requisite is that the candidate is currently / or will be shortly filling one of the key billets (operations officer, fire support coordinator, ast./future operations, chief billet, or regimental / independent battalion gunner.

The OTI will return to his unit as an expert in unit planning, operations, and training, within the construct of a join, interagency, MAGTF fight:

- From a planning perspective, the OTI will return with detailed knowledge and experience in applying the MCPP process, leading the OPT, executing and supervising the orders process, and coordinating the final plan for execution. The OTI will return with a detailed and vetted planning SOP to support future unit operations and training.
- From an operations perspective, the OTI will understand how to leverage and coordinate joint, interagency, and non-organic MAGTF support of the integrated GCE operation, using the appropriate procedures, systems, and networks. The OTI will return with a detailed and vetted Command Post SOP to support future unit operations and training.
- From a training perspective, the OTI will understand the conceptual and technical procedures of UTM and training management /readiness, but more importantly will have a detailed understanding of the institutional training programs and systems to support his training and combat preparation requirements. Virtually all of the courses training and exercise products will be exportable to support unit training, upon his return to his unit.

The MCTOG will execute a four-phased activation campaign plan that incrementally leads to a full operational ca-

pacity by January 2009. Each anticipated phase is segmented with the supporting critical tasks to move to the next phase. The unit campaign phasing approach is as follows:

- **Phase I – Setting Conditions (Current-February 2008).** This phase is focused on planning and coordinating the physical stand-up of the organization, the establishment of operating procedures to support command functioning, the development of the curriculum and the faculty, and the establishment of unit specific facilities. During this phase the unit will move from an initial manning of 20 (5 MO/15 ME) to a manning level of 39 (14 MO/25 ME) to support the training of the core staff and faculty to execute the BETA and the Pilot courses. From a facilities perspective, the immediate facilities plan is focused on the use of existing infrastructure for staff space, and the modification of an existing warehouse to a battle lab facility to support classes, planning, and simulation. Concurrent to the manning and facilities process, the key staff will continue with the development of the core curriculum, exercise design, course execution, and instructor development process.
- **Phase II – Proof of Concept (March-June 2008).** This phase is focused on the transition from curriculum and course development to proof of concept through the execution of a BETA course and a pilot course. Concurrent to the execution of these courses, the unit will complete fiscal year 2008 manning (21 MO / 27 ME) to support transition to the next phase. During this period, the interim modular facilities will be completed to support mid-term facilities requirements (class room, staff, battle lab, etc) until the completion of permanent MILCON project.
- **Phase III – Expanded Capability (July 2008 -January 2009).** The instructor development program continues as a recurring process through phases II and III to prepare newly joined unit members as certified faculty. During Phase III, MCTOG simultaneously conducts scheduled resident courses, implements the operational forces support plan, and commences institutional support functions (T&R syllabus management, concept and equipment transition, etc) as specified.
- During **Phase IV**, the command completes manning, refines resident course, fleet support and supporting functions as it shifts to sustained operations.

MISSION-CAPABLE TRAINING RANGES

Marine Corps combat readiness depends on the continued availability of ranges and training areas (RTAs) that provide realistic, mission-oriented training. The Marine Corps Master Plan of 1997 highlights the importance of RTAs, as well as the need to properly develop and manage these key resources. The Marine Corps vision for installation and range transformation is contained in Marine Corps Installations 2020 (I-2020). A range-specific master plan is in the early stages of development and, in support of that effort, the Marine Corps Training and Education Command (TECOM) has completed an assessment of Corps-wide range requirements. The final product of this effort, a Marine Corps Reference Publication, will provide a set of unconstrained range capability requirements for accomplishing urgent and anticipated future training.

TECOM has established six cornerstone objectives for transforming RTAs, including:

- Preserve and enhance the live-fire combined arms training capabilities of Marine Corps Air Ground Combat Center/Marine Air Ground Task Force (MAGTF) Training Command, 29 Palms, CA, and Marine Corps Air Station, Yuma Range Complex, AZ.
- Recapture the MAGTF and unit training capabilities of the nation's two premier littoral training areas, Camp Lejeune, NC, and Camp Pendleton, CA.
- Leverage technology to support every level of training with a goal of providing timely and objective feedback to the training audience.
- Honor our commitments to protecting the environment, while preserving and enhancing our ability to conduct live-fire and maneuver training.
- Ensure that our training complexes are available to, and capable of supporting, cross-Service training.
- Support the emerging Joint National Training Capability with the common range infrastructure and systems architecture to ensure effective joint training.

There have been significant investments in range instrumentation, targets, and simulation technologies to upgrade and modernize training. However, there remain areas of significant concern. Current range-complex configurations are not optimal for today's training requirements, and they may not be adequate for future weapons systems. Of even greater concern, they provide insufficient unconstrained maneuver space for MAGTF training. Current range-planning initiatives aim at addressing these concerns to assure our ability to meet future training requirements. Specific issues include:

- Marine Expeditionary Brigade (MEB)-level fire and maneuver training area.
- MAGTF (MEB-level) Military Operations in Urban Terrain (MOUT) facility (large-scale MOUT).
- Convoy operations and counter-improvised explosive device (IED) courses.
- Video-capture, reactive targetry, and AAR capabilities.

The Marine Corps has made considerable progress in the past seven years on cataloging, assessing, managing, and funding critical RTA complexes. There has been progress in identifying and quantifying the impacts of encroachment and then incorporating those assessments into a comprehensive range management system. Important investments have been made to enhance range maintenance and

modernization programs. Currently, all major Marine Corps installations are undergoing range modernization. The Corps is ever aware of the Service's dual responsibilities of providing stewardship for these precious resources and producing ready, well-trained Marines when America calls.

PRE-DEPLOYMENT TRAINING IN SUPPORT OF OPERATIONS IRAQI FREEDOM AND ENDURING FREEDOM

In order to train operating forces for the current operating environments, Operations Iraqi Freedom and Enduring Freedom, TECOM has developed the Pre-deployment Training Program (PTP). The PTP consists of three distinct training exercises: Mojave Viper (MV), Desert Talon (DT), and Mountain Warrior (MW).

MOJAVE VIPER

Conducted aboard the Marine Air-Ground Task Force Training Command (MAGTFTC) in 29 Palms, CA, it consists of 14 days of combined Arms Training (CAT), 10 days of Urban Warfare Training (UWT), and six days of unit specific training. CAT includes the following live fire events: platoon and company attacks, convoy operations course, combat patrol course, and Fire Support Coordination Exercises which integrate supporting arms, the Fire Support Teams, and ground maneuver. UWT includes Squad/Platoon/Company level lane training and a three-day Final Exercise based on current operating environment. The unit training block enables the exercise force to accomplish unit Mission Essential Tasks (METs) which leads to certification for deployment.

DESERT TALON

Conducted aboard MCAS Yuma, local ranges and nearby towns by Marine Aviation Weapons and Tactics Squadron One (MAWTS-1), it is a two-week training exercise designed to prepare Marine Corps ground/aviation units for deployment to Operation Iraqi Freedom. It is broken down into an academic phase (four days) and a flight phase (seven days). During the academic phase a series of classroom presentations, lectures, guest speakers, and informal discussion groups focusing on Operation Iraqi Freedom lessons learned in force protection, convoy support, casualty evacuation (CASEVAC), MOS TTPs and SOPs, and aircraft survivability. The flight phase includes training such as convoy operation support, urban CAS, tactical recovery of aircraft and personnel (TRAP), forward air controller, and CASEVAC training.

MOUNTAIN WARRIOR

Conducted aboard the Mountain Warfare Training Center in Bridgeport, CA specifically for units deploying in support of Operation Enduring Freedom. MW is a two-week training exercise broken into four phases: Pre-environmental, survivability and mobility, small-unit and company/MAGTF operations.

ROLE PLAYERS AND CIVILIANS ON THE BATTLEFIELD

DESCRIPTION

The urban battlefield has Marines encountering a myriad of activity to include host nation civilians in their daily activity. Role Players portraying Civilians On the Battlefield (COB), insurgents, and other personnel encountered in operations are utilized to provide fidelity, depth, and cultural realism in training. They constitute the population which fills Military Operations in Urban Terrain training facilities and systems thereby making them an urban location.

OPERATIONAL IMPACT

Role playing efforts allow Marines to interact with culturally correct personnel during training. Exercise Planning tools are currently in development by the Range Modernization and Transformation program that will additionally track second and third order effects of interactions with role players thereby adding even more depth to their present roles. These efforts help Marines better understand small and large cause-and-effect relationships in operations and reinforce all aspects of cultural training delivered by other training venues.

PROGRAM STATUS

Centralized contracts are awarded to implement Role Players into Operation Iraqic Freedrom/Operation Enduring Freedom Predeployment Training at MAGTFTC, homestations, and other training venues.

Procurement Profile:
Future year funding allows the Marine Corps to continue Role Playing activities within Pre-Deployment Training.

Developer/Manufacturer:
Tatitlek Training Support Services, Defense Training Services

SUPPORTING ARMS VIRTUAL TRAINER (SAVT)

DESCRIPTION

The Supporting Arms Virtual Trainer (SAVT) shall advance the training capability, operational readiness, and tactical proficiency of Joint Terminal Attack Controllers (JTACs), Forward Observers (FOs), and Forward Air Controllers (FACs). The personnel shall use training scenarios that require the placement of tactical ordnance on selected targets using Joint Close Air Support (JCAS) procedures and observed fire procedures for Naval Surface Fire Support, artillery and mortar fire to perform destruction, neutralization, suppression, illumination/coordinated illumination, interdiction, and harassment fire missions.

OPERATIONAL IMPACT

The SAVT will train JTAC and FOs the tactics and techniques required for accomplishing call for fire and CAS missions. The SAVT systems will provide an immersive mission-based training environment for two students training in the application of combined arms and a briefing room training environment for a group of students monitoring and reviewing the mission-based training event. It has been accredited by the JCAS Executive Steering Committee for use to replace up to one-third of the annual live controls required to maintain annual qualification for JTACs and FACs in accordance with JTAC Memorandum Of Agreement and Service-level standards.

PROGRAM STATUS

An Urgent Universal Need Statement was approved in December 2006, followed by an approved Marine Requirements Oversight Council Decision Memorandum, signed 5 April 2007, for training JTACs and FOs. The SAVT will leverage from an existing Navy program, Multipurpose Supporting Arms Trainer. Six SAVT systems will be procured to replace the Training Set Fire Observation trainers. The SAVT systems will be fielded to Camp Pendleton, CA, 29 Palms, CA, Camp Lejeune, NC, Okinawa, Japan, Kaneohe, HI, and Yuma, AZ starting 3rd quarter 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	1	5

Developer/Manufacturer:
TBD

TRAINING AND EDUCATION TRANSFORMATION

All training and education (T&E) programs are evaluated as parts of a career-spanning continuum. The T&E Continuum is a template for a systematic review of all individual and unit T&E initiatives, including entry-level training (such as military occupational specialty (MOS), schools), skill progression training, professional military education (PME), common skills training, and unit training. Skill progression training diminishes over time, while professional military education increases as Marines progress through the ranks. Experience is the ever-present constant that determines the rate at which a Marine trades skill progression training for professional development and PME. The Continuum provides perspective focus and balanced T&E development.

Training and Education Centers of Excellence (TECOEs) are responsible for linking all training and education programs to the Continuum. TECOEs are categorized as MOS-specific centers; skill centers, such as martial arts and marksmanship; climate/geographic centers, such as the Mountain Warfare Training Command (MWTC); or functional centers, such as the Marine Aviation Weapons and Tactics Squadron (MAWTS) and Marine Air Ground Task Force Training Command (MAGTFTC).

A continuing review of entry-level training has resulted in efficiencies saving hundreds of manpower training years. Further review will identify additional T&E gaps, redundancies, and opportunities. Resulting improvements will raise individual and collective combat readiness.

TECOEs are also responsible for developing a key element of the T&E Continuum: the MOS Roadmap. Founded on doctrine, core competencies, and operational requirements, the Continuum is the cornerstone of training for every Marine.

MARINE CORPS MOS ROADMAPS

MOS Roadmaps provide a guide for Marines through the Training and Education Continuum. At a single source, the individual Marine will have access to general and specific career training, education requirements, and opportunities across the Continuum. From Private to Master Gunnery Sergeant/Sergeant Major and from Second Lieutenant to General, the MOS Roadmap assists Marines in successfully navigating their tour of duty. Roadmaps display requirements of the MOS Manual in addition to other elements, including skill progression training, PME, billet assignment/unit training, and voluntary education. A significant benefit of MOS Roadmaps is that they provide mentors and leaders a "map" for counseling junior Marines on career training and education.

Draft editions of MOS Roadmaps were initially published on the Training and Education Command (TECOM) website beginning in May 2004. Additionally, Marines completing MOS schools are provided hard copies of current Roadmaps. Roadmaps are changed as requirements demand.

USMC OPERATOR DRIVING SIMULATOR (USMC-ODS)

DESCRIPTION

The USMC-Operator Driving Simulator (ODS) is an operator's driver simulator with a generic cab system that has the capability of various training tactical wheeled vehicles. Currently, the USMC-ODS simulates the High Mobility Multipurpose Wheeled Vehicle (HMMWV, M1114 variant), Medium Tactical Vehicle Replacement (MTVR), and MTVR Armor System (MTVR MAS), and Mine Resistant Ambush Protected Vehicles (MRAP CAT I). The USMC-ODS is a single fixed based system with three visual channels and seat motion with three degrees of freedom. The ODS system consists of four major components: simulated truck cab, visual system, instructor operator station, and electronics cabinet. The mobile configuration is housed in a self-contained mobile trailer with electrical connection for shore based power, air-conditioning, heating and lighting necessary to conduct ODS training inside the trailer. The fidelity of the systems provides trainees with realistic experience operating the selected tactical wheeled vehicle during both on-road and off-road conditions in a variety of scenario based environments.

OPERATIONAL IMPACT

The USMC-ODS is used by all Marine organizations (operating forces and Marine Forces Reserves) for initial driving orientation, augmenting road miles for licensing requirements, sustainment and refresher training. These systems provide trainees the opportunity to experience various driving scenarios and reaction skills in a controlled environment.

PROGRAM STATUS

The USMC-ODS is currently fielded to home stations at Camp Lejeune, NC and Camp Pendleton, CA. In CY2008, III MEF will receive USMC-ODS systems in Hawaii and Japan .In support of predeployment training, an USMC-ODS is available at Mohave Viper, 29 Palms, CA. Marine Reserves have several USMC-ODS systems fielded (Las Vegas, NV; Red Banks, NJ; and Erie, PA) or scheduled for fielding during CY 2008 (Ebensburg, PA, Great Lakes, IL, Seattle, WA, Fort Worth, El Paso, TX, Orlando, FL, and Portland, OR).

Procurement Profile:	FY2008	FY2009
Quantity:	12	10

Developer/Manufacturer:
FAAC, Inc. Ann Arbor, MI

VIRTUAL COMBAT CONVOY TRAINER – MARINE (VCCT-M)

DESCRIPTION

The Virtual Combat Convoy Trainer – Marine (VCCT-M) is a mobile, self-contained and self-supporting trailer to train Marines and tactical leaders in convoy operations. The VCCT-M trains Marines in basic and advanced combat convoy skills using variable terrain and roads in a variety of weather, visibility and vehicle conditions. This training system enables crews and convoy elements to train repetitively, safely, and efficiently in a realistic manner aboard a mock-up High Mobility Multi Wheeled Vehicle (HMMWV) using simulated small arms and crew served weapons, with a 360 degree field of view visual display.

OPERATIONAL IMPACT

A VCCT-M will support training requirements in a virtual environment for combat, combat support, and combat service support units at Marine Reserve Training Centers (RTC). The VCCT-M immerses the crews and convoy elements in a realistic environment allowing repetitiveness, review, and critique, while eliminating the requirement for actual vehicles, weapons, ammunition, communication gear, batteries, fuel, and tactical maintenance items.

PROGRAM STATUS

The Commander Marine Forces Reserve (CMFR) procured one VCCT-M suite (4 trailers) that is currently operating at Camp Wilson, 29 Palms, CA. CMFR also procured a VCCT-M half suite (2 trailers) first quarter 2006. This half suite is being relocated to RTCs throughout the Continental United States to support Reserve Component training. In addition to VCCT-M, the CMFR procured two Reconfigurable Vehicle Simulators, which will be used for convoy training and will interoperate with the existing VCCT-M. These two systems are also mobile trailers, but incorporate two mock-up HMMWVs in a single trailer. The CMFR will take delivery of these two trailers in 2nd quarter 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	TBD	TBD

Developer/Manufacturer:
TBD

FACILITIES MANAGEMENT

The Marine Corps has over $38 billion worth of facilities used to train, house and provide quality of life for Marines. Examples of these facilities are barracks, runways, sewage treatment plants, roads, and electrical lines. These facilities are used to perform mission essential tasks, and they need to be appropriately maintained. Adequately sustaining required facilities should be the highest facilities management priority.

There are several tools in place or in development to ensure facilities readiness:

- Facilities Sustainment model: an Office of the Secretary of Defense (OSD) model to calculate annual costs to preserve facility condition. We are currently funding to 90% of the model, highest of the four Services.
- Shore Facilities Planning System: a Department of the Navy system used to align force structure with facility size. This model not only allows us to estimate new facilities requirements but also evaluate when we can demolish unneeded facilities.
- Facilities Modernization model: an OSD model in development which will help estimate the replacement investment in facilities.
- Facilities Operations model: an OSD model in development that will help estimate the cost of facilities support to include utilities, fire protection, janitorial and engineering management. Accurately estimating these relatively fixed costs is key to planning facility expenditures.

BARRACKS INITIATIVE

As the Marine Corps has invested substantially to improve Family Housing, it has also focused on similar standard of living improvements for single enlisted Marines. Plans are in place to invest roughly $2.5 billion dollars in the next few years on bachelor housing construction, improvements and furnishings. We have also invested, and will continue to invest, countless hours of leadership time in improving all aspects of single enlisted Marines' quality of life.

ALMAR 106/98 addressed the need for policies that properly assign Marines to rooms/spaces, articulate visitation procedures, allow responsible alcohol consumption, and establish guidance on proper room decorum. The Bachelor Enlisted Quarters (BEQ) Campaign Plan has been updated to provide a common roadmap for management of our BEQs. It takes into consideration change in barracks design and billeting configurations, and clarifies the Commandant's intent to provide an atmosphere that supports unit development and cohesion while respecting barracks as the home of single Marines.

MILITARY CONSTRUCTION SUPPORTING GROW THE FORCE

Upon reexamination of the Marine Corps' structure and manning relative to its expected long term mission needs, President Bush approved a permanent end strength increase of 27,000 Marines, from the base of 175,000 to 202,000 Marines. To ensure that these Marines have adequate facilities in which to live and work, the President's fiscal year 2007 Supplemental request included $324 million to accomplish critical path infrastructure projects. This effort was continued with the President's fiscal year 2008 Global War on Terrorism (GWOT) request of $169 million and the President's fiscal year 2008 budget request of $458 million. The balance of this investment, including military construction and family housing, is being aggressively programmed.

RANGE MODERNIZATION/TRANSFORMATION (RM/T)

DESCRIPTION

The Range Modernization and Transformation (RM/T) program modernizes major Marine Corps base and station live training ranges with a dynamic training system capable of real time and post mission battle tracking, data collection and the deliverance of value added After Action Review. Interface with installation command and control training centers (i.e. Battle Staff Training Facility, Combined Arms Staff Trainer, Battle Staff Simulation Center). It is paramount to producing multiple scenario events that deliver relevant and realistic training. Integrating live and simulated training technologies, the fielded capabilities actively enhance live-fire, force-on-target, and force-on-force training through extensive after action review with ground truth feedback (objective versus subjective), realistic representation of opposing forces (OPFOR) and enhanced range and exercise control capabilities.

OPERATIONAL IMPACT

RM/T links Marine Corps live training to the tenets of Training Transformation (T2) – Joint National Training Capability and Joint Assessment and Evaluation Capability. Instrumentation allows Service and Joint virtual and constructive forces to interact with Marine Corps live training forces from distributed locations. Eventually expanded to also incorporate coalition forces, Marine Air Ground Task Force live training in open and urban terrain is enhanced by providing capabilities to conduct realistic training which exercises all battlefield operating systems, and by allowing continuous assessment of performance, interoperability, and identification of emerging requirements.

PROGRAM STATUS

In fiscal years 2004, 2005, and 2006, contracts were awarded to develop and produce ground and air position location systems, OPFOR threat systems, and Data Collection Systems in order to instrument the live training environment at MCAGCC, Twentynine Palms, CA during 2008. Additionally, standalone and deployable instrumentation capabilities are being fielded to homestations during 2008. A current parallel effort is enhancing the RM/T Data Collection System to provide interface of improvised explosive device and Counter Radio-controlled Improvised Explosive Device Electronic Warfare System surrogate devices with live training audiences and to extend the Data Collection System functions from exercise design through playback and After Action Review. Currently fielded portions of this effort include the Reactive Information Propagation and Planning for Lifelike Exercises and Combined Arms Planning Tool software applications.

Procurement Profile:
Fiscal year 2007-2012 funding will allow this capability to be fielded throughout the Marine Corps.

Developer:
Concurrent Technology Corporation, Georgia Institute of Technology Research Institute, SRI International, UNITECH, others pending procurement awards.

ENCROACHMENT CONTROL

Encroachment is defined as any external force that causes the loss of military readiness, including the loss of use of land, air and sea space as well as the frequency spectrum. Monitoring, evaluating, and responding to encroachment is critical to ensuring bases, ranges and airspace are available to support mission readiness now and in the future. The Sustainable Ranges Initiative is a process that integrates all aspects of installation and range/training area management, and provides for the installations' and the regions' long-term viability and ability to support realistic training. The Marine Corps is proactively engaged with federal, state, and local governments, as well as non-governmental organizations to develop mutually satisfactory solutions to encroachment pressures that will allow compatible land use and environmental protection without degrading military mission readiness.

ENVIRONMENTAL STEWARDSHIP

Excellence in warfighting requires unencumbered access to the land, sea, and airspace needed to conduct quality, realistic training. Unless properly managed, Marine Corps land, sea, and airspace resources can become damaged to the point where realistic training is degraded. Effective environmental management ensures mission readiness by allowing the Marine Corps to sustain and enhance these training assets, while protecting the health of our citizens and the valuable resources entrusted to us by our nation.

While compliance with applicable laws and regulations is as important as ever, the Marine Corps enhances mission capabilities through a systematic approach to environmental management that promotes use of integrated land management principles and pollution prevention. To ensure that frequent, repeated use of land for readiness purposes can be sustained, each installation prepares and implements an Integrated Natural Resources Management Plan and Integrated Cultural Resources Management Plan. The Marine Corps also seeks ways to reduce pollution through material substitution, best management practices, and training Marines and civilians to perform their jobs in an environmentally sound manner.

ENERGY CONSERVATION

The purchase of electricity, natural gas, heating fuels, and potable water necessary to operate facilities represents a significant expense to the Marine Corps. In addition, the Energy Policy (EP) Act of 2005 and Executive Order (EO) 13423 are in place to support national goals to reduce both greenhouse gas emissions associated with the burning of fossil fuels and our nation's dependence on foreign oil. Specifically, EO 13423 mandates Federal agencies to reduce Energy Intensity by 3% annually (30% by 2015) relative to 2003 baseline and reduce Water Consumption Intensity by 2% annually (16% by 2015) relative to 2007 baseline. In order to improve the energy and water efficiency of its existing buildings, incorporate sustainable design principles in the construction of new buildings, and increase the use of renewable energy technologies, the Marine Corps is:

- Utilizing Energy Savings Performance Contracts and Utility Energy Service Contracts to develop and implement cost effective: (1) energy and water conservation measures, (2) renewable energy technologies such as biomass, geothermal, solar, and wind, and (3) electrical load shedding and demand reduction strategies.
- Complying with EPAct 2005 requirements to meter buildings and to procure energy consuming products that are ENERGY STAR®-qualified or Department of Energy Federal Energy Management Program (FEMP) designated (upper 25% of energy efficiency in their class).
- Requiring new building construction and major renovations to achieve a U.S. Green Building Council's Leadership in Energy & Environmental Design rating of Silver to the extent practical and cost effective.

GARRISON MOBILE EQUIPMENT (GME) FLEET MANAGEMENT SYSTEM (FMS)

The Marine Corps has implemented an enterprise-level commercial vehicle fleet management system to efficiently operate its Garrison Mobile Equipment (GME) fleet. FleetFocusTM FA is a comprehensive, Web-enabled, Windows-based Fleet Management System (FMS) that can track an unlimited number of GME assets and support an unlimited number of workstations in multiple locations. This system provides comprehensive recording and reporting of GME fleet management data in order to maximize the efficient use of Marine Corps commercial vehicle assets.

The Marine Corps now has an unprecedented view of enterprise-wide GME utilization and maintenance costs. This capability supports annual GME procurement/lease decisions and forecasting future GME requirements. This database and reporting capability is supporting GME regionalization on the east and west coasts of CONUS, eliminating redundant overhead and improving utilization of transportation requirements. This initiative has also returned 242 Marines to the Operating Forces. Through the use of FMS and application of lessons learned, underutilized vehicles have been removed from service keeping the overall size of the fleet in check. Additionally, the Marine Corps has maintained GME service levels despite conflicting demands of reduced petroleum consumption while supporting increased operational tempo.

Future capability enhancements include 1) expanding the FMS capability to the maintenance shop level in order to capture maintenance activity at the point of 'sale', improving data accuracy and timeliness and 2) interfacing with, or transition into, a future block of Global Combat Support System-Marine Corps when it supports Installation logistics functions.

QUALITY OF LIFE (QOL)

With priority placed on our Marines and Sailors in combat, the Marine Corps continues to focus on key impact areas to improve quality of life. Today's Marines carry on our long legacy of selfless service to the Nation and the Marine Corps honors its commitment to these warriors by ensuring they have the tools and resources to secure family readiness at home.

Last year, the Marine Corps embarked on an aggressive plan of attack to ensure our family readiness programs have fully transitioned to a wartime footing, capable of sustaining Marines and families for the Long War. The plan began with rigorous program assessments. These assessments concluded that our family support programs and processes were in need of updating to withstand the demands of our current multiple and sustained deployments. Our family readiness programs were based upon a peacetime model, with an insufficient military infrastructure, excessive reliance on volunteers, and outdated communication processes. The assessments also yielded valuable data from key family readiness stakeholders, such as Marines, families, commands, and service providers. From this data we developed and began implementation of recommendations to fully transition our Marine Corps Family Team Building (MCFTB) and Unit Family Readiness Programs to a wartime footing with stronger communication linkages and focus on helping Marines ensure personal and family readiness throughout mission, career, and life events.

Focal points of new Marine Corps family readiness functions include: a formalized relationship of all family readiness process owners to ensure their accountability and orient them to helping the individual Marine and family; expanded MCFTB programs to support the new Marine Corps family dynamic: "born into, sworn into, married into" (support extends to Marine, spouse, child, and parents), increased installation MCFTB staff; improved technology to enhance communication between commands and families; expanded training capabilities to include lifeskills education and training; and a significant reduction in the heavy reliance on volunteers. Fundamental to the success of the new family readiness capabilities is consistent communication among all individuals affected. For maximum impact and usage of the sweeping new capabilities, we are backing them with a sustained and extensive outreach campaign especially for our young family demographic.

The individual Marine, fully supported by a Unit Family Readiness Program Command Team (including the commander, executive officer, sergeant major, chaplain, and family readiness officer) and refreshed MCFTB installation support functions, is accountable for his/her personal and family readiness. The Unit Family Readiness Program Command Team provides support in the form of official communication, information and referral, and Marine and family readiness and deployment support. MCFTB

assists the Marine and unit by providing programs, services and especially key training necessary to meet successfully the challenges of the military lifestyle and mission requirements of the Marine Corps.

Just as every Marine makes a commitment to the Corps when they earn the title Marine, the Corps makes an enduring commitment to every Marine – and an enduring commitment to their family.

TAKING CARE OF MARINES AND FAMILIES

Marines make a commitment to the Corps when they earn the title Marine. The Corps makes an enduring commitment to every Marine—and an enduring commitment to their family to take care of our own. The Commandant's Planning Guidance of October 2006 defined the priorities and focus of the 34th Commandant. With the priority of Marines and Sailors in combat, improving quality of life for our Marines and our families was identified as a specific focus area.

During 2007, a series of functional assessments was conducted for the purpose of documenting service levels and evaluating the current state and sufficiency of Marine and family support programs aboard installations and at unit levels. We also collaborated with sister services and other public or private organizations to learn about their programs and service delivery methods. We augmented our assessments with customer feedback gained from thousands of Marines and their families who participated in on-line customer surveys or freely commented on issues and satisfaction with existing support at town halls or focus groups Marine Corps-wide. From our internal assessments and external collaboration we were able to identify best of breed and best of class opportunities that could be integrated throughout the Marine Corps, as well as program deficiencies.

In hearing the concerns of family members and Marines alike, the Commandant authorized key Marine and family readiness program reforms to transition Family and Single Marine Programs beginning in 2008 and continuing through 2009. Initiatives are underway to invest in Marine and family support programs by increasing staffing, exploiting technology, refreshing and expanding the scope of programs, and addressing the generational needs of Marines and their families. Specific reform will be focused on advancing capabilities to meet the needs of our junior Marines and families of the Millennial Generation.

Inherent to our program changes is the intent to create a continuum of care for our Marines and their extended families. Therefore, our program capability must include and address the needs of the families Marines were born into, sworn into, or married into. This focus of effort is important as our families are not as hardened as our warrior Marines and more significantly feel the impact of stress on the force. To strengthen our families, availability of care must be consistently established to support the lifecycle of a Marine and through their mission, life, and career events.

Programs under redesign or enhancement include those that most directly touch and help prepare or support Marines and their families including: Unit Family Readiness Program, Marine Corps Family Team Building Program, Exceptional Family Member Program, School Liaison Program, and Children, Youth and Teen Program. As a companion effort, we will take additional action to address quality of life deficiencies at remote and isolated installations, expand communication connections between

separated Marines and their families, and make needed improvements to quality of life facilities, infrastructure and equipment throughout the Marine Corps.

Family readiness is a component of mission readiness. The Commandant has listened to his Marines and their families and taken action. Through these actions and others, the Marine Corps' quality of life will be enhanced and appropriately sustained into the future.

WOUNDED WARRIOR REGIMENT (WWR)

Formed in April of 2007, the Wounded Warrior Regiment (WWR) integrated the roles and functions of the Marine Corps' former Marine For Life (M4L) program and immediately began to assume responsibilities for non-medical wounded warrior care. The Regimental Headquarters element, located in Quantico, Virginia, coordinates the operations of two Wounded Warrior Battalions located at Camp Pendleton, California, and Camp Lejeune, North Carolina. The Regimental Headquarters is striving to eliminate any seams in the medical recovery system by providing unity of command and effort through a single commander who provides guidance, direction, and oversight to the Marine Corps wounded warrior process. The WWR also has command over Military Treatment Facilities' Patient Affairs Teams (PATs), Marine Corps liaisons at Department of Veterans Affairs Polytrauma Rehabilitation Centers, District Injured Support Cells (DISCs), Naval Hospital Liaisons, and M4L Hometown Links.

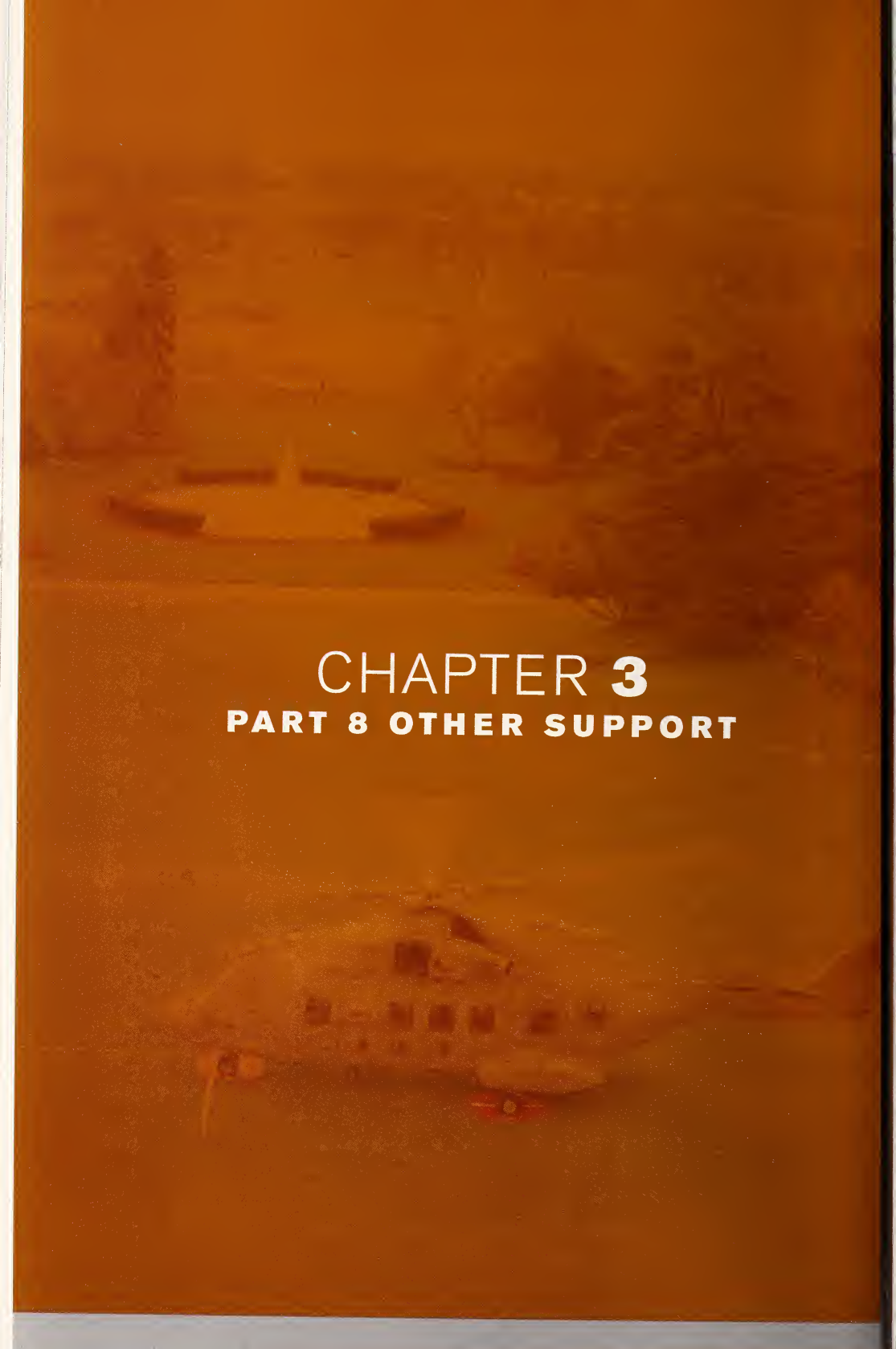
The mission of the WWR is to provide and facilitate assistance throughout the phases of recovery to wounded/ill/injured Marines, Sailors attached to or in direct support of Marine units, and their family members. In addition to the Regimental and Battalion staffs, this effort is facilitated through the dedicated on-site PATs and through regional DISCs who conduct visits and telephone outreach to Reserve and former Marines dispersed throughout the country. This effort is also accomplished through close coordination



with Inspector-Instructor sites that assist in the patient affairs mission at civilian hospitals where no PAT is located. This structure facilitates face-to-face contact when providing program information and assistance to service members, family and medical facility staff.

Some of the common assistance provided include:

- Helping wounded Marines through medical and physical evaluation boards;
- Assisting wounded Marines in making Traumatic Servicemembers Group Life Insurance claims;
- Acting as a clearinghouse for charitable donations;
- Working to ensure accountability and non-medical case management during recovery for wounded warriors;
- Ensuring that injured receive the same level of medical care regardless of geographical location;
- Oversight of the transition from Department



CHAPTER 3
PART 8 OTHER SUPPORT

INTRODUCTION

The programs, enhancements, and systems in this section provide other critical support to Individual Marines, their families and the Marine Air Ground Task Force (MAGTF). They are not necessarily in the realm of any specific MAGTF element as their benefits either support all Marines, as is the case with Force Protection and Chemical, Biological, Radiological and Nuclear (CBRN) programs, or they support a small, specialized communities, of Individual Marines, for example, programs to enhance the effectiveness and survivability of combat divers and parachutists. Still, the focus is on ensuring that needed capabilities are available to support operational needs, effectively and efficiently.

COMBAT DIVERS DISPLAY MASK (CDDM) WITH INTEGRATED VOICE COMMUNICATION (IVC)

DESCRIPTION

The Combatant Diver Display Mask (CDDM) is an integrated full facemask with a display screen and underwater voice communication system. With the transducer attached to the diving apparatus the CDDM display screen will display the diver with his depth, breathing gas pressure and current time of dive. With the voice communication system, the dive team will have the capability to talk from diver to diver with the aid of the communication rope as well as through water communication from dive team to dive team along with dive team to top side. This system can be used with several diving systems that include the MK25 closed circuit Underwater Breathing Apparatus (UBA), traditional open circuit SCUBA as well as the MK16 semi closed circuit system. The CDDM NATO pod has a universal adaptor that will allow the diver to switch between two diving systems while the diver is subsurface as well as allow for any newly approved diving systems to be utilized.

OPERATIONAL IMPACT

The CDDM will replace the current divers mask and primarily will be utilized with the MK25 closed circuit UBA. The CDDM will provide the combatant diver with protection against the elements around the facial area along with providing him the capability to better monitor his depth, bottle pressure, time of dive and maintain voice communication between divers, dive teams and top side support. When utilizing the Divers Propulsion Device (DPD), dive element leaders will be able to maintain better Command and Control (C2) of their unit as well as better C2 from top side and the dive unit conducting clandestine operations.

PROGRAM STATUS

The CDDM is in the system development and demonstration phase of the acquisition life cycle. The Marine Corps purchased fifteen (15) prototype masks and fifteen (15) production-like communication systems in fiscal year 2007 for performance testing. During fiscal year 2008, Marine Corps Systems Command in conjunction with the Marine Corps Operational Test and Evaluation Activity will be conducting additional performance testing and Field Users Evaluation to determine its ability to meet requirements. Procurement of production masks will be in fiscal year 2008 based on successful evaluation/testing. Fielding of the CDDM is planned to begin in fiscal year 2009 and continue to completion in fourth quarter fiscal year 2009.

Procurement Profile:	FY2008	FY2009
Quantity:	15	885

Developer/Manufacturer:
CDDM - Kirby Morgan,
Voice Communication System – Ocean Technology Systems (OTS)

FAMILY OF RIGID WALL SHELTERS

DESCRIPTION

The Marine Corps Family of Rigid Wall Shelters consist of the Electronic Magnetic Impulse and Electronics Maintenance Complex Rigid Wall Shelters. These shelters provide a highly mobile, environmentally controlled work space used for maintenance, communication, and calibration facilities use to protect equipment and functions needed to support Fleet Marine Force operations.

OPERATIONAL IMPACT

The Family of Rigid Wall Shelters is used at intermediate maintenance activities to provide a tailored electronics maintenance facility to support the operations of any of the supporting elements of a Marine Air Ground Task Force as well as to provide short term contact team maintenance support.

PROGRAM STATUS

The Family of Rigid Wall Shelters is reviewing new requirements and modification to reflect the changes in industry and mission requirements.

Procurement Profile:	FY2008	FY2009
Quantity:	604	604

Developer/Manufacturer:
TBD

FAMILY OF TACTICAL SOFT SHELTERS (FTSS)

DESCRIPTION

The Marine Corps Family of Tactical Soft Shelters (FTSS) are shelters for tactical use that maximize modularity, ease of use, operational effectiveness, durability, and the ability to connect with vehicles and like shelters. It includes the Expeditionary Shelter System, Modular General Purpose System, Lightweight Maintenance Enclosure, Combat Tent, 10 Man Arctic Tent and the Extreme Cold Weather Tent.

OPERATIONAL IMPACT

The FTSS will provide protection from the natural environment to the Fleet Marine Force for use in varied mission roles (i.e., Command and Control, Administration, Billeting, Supply, Medical Dental and Messing). The FTSS is not designed to counter a specific threat. Rather, it is intended to improve the effectiveness with which a variety of battlefield functions are accomplished.

PROGRAM STATUS

The Family of Tactical Soft Shelters is currently in Post MS C with approximately 58% fielded. Various items are replaced/upgraded as determined by the life cycle manager and program manager.

Procurement Profile:	FY2008	FY2009
Quantity:	3,917	3,917

Developer/Manufacturer:
TBD

FORCE PROTECTION CAPABILITY SETS (FPCS)

DESCRIPTION

The Force Protection Capability Set (FPCS) contains the weapon systems and equipment required to satisfy the operational requirement for an enhanced capability to apply non-lethal force. The FPCS consists of three component capability sets: The Non-Lethal Training Set (NLTS), Anti-Terrorism/Force Protection Capability Set (ATFPCS), and the Non-Lethal Weapons Capability Set (NLWCS).

The NLWCS provides an effective and scalable response capability in non-lethal situations. The components are explicitly designed and primarily employed to incapacitate personnel or material, while minimizing fatalities or permanent injury to intended targets and collateral damage to property and the environment. They are not required to have zero probability of producing fatalities or permanent injuries but are designed and employed in a manner that significantly reduces those probabilities over the traditional employment of currently fielded military weapon systems, munitions, and equipment.

The ATFPCS was fielded in response to AT/FP requirements addressing the Marine Corps' AT/FP mission, highlighting shortcomings in the area of force protection equipment. The kit includes vehicle stopping and under vehicle screening and searching devices, explosive detection, floodlights, metal detectors, communication assets, as well as other equipment.

The NLTS is modeled for the Table of Equipment of either a Marine rifle company or platoon. The equipment assists with training and proficiency in a realistic environment. Items in the NLTS include inert OC sprays, training batons, riot gear, and other training devices.

OPERATIONAL IMPACT

The FPCS provide the appropriate weapons and equipment to employ a range of non-lethal operations short of deadly force. The fielding of the FPCS to the Operating Forces is intended to augment existing lethal capabilities.

PROGRAM STATUS

59 NLWCS, 12 NLCTS and 126 ATFPCS have been procured and fielded through fiscal year 2006.

Procurement Profile:	FY2008	FY2009
NLWCS	0	0
ATFPCS	0	0

Developer/Manufacturer:
Aardvark Tactical Inc., Azusa, CA

GREEN BEAM DESIGNATOR (GBD-IIIC) LASER SYSTEM

DESCRIPTION

The Green Beam Designator Laser System (GBD-IIIC) is an Escalation of Force (EoF) non-lethal weapons system that provides a visual hailing and warning capability to gain attention of personnel approaching lethal force authorized zones. This system will provide safe and effective visual hail and warn technology to minimize the risk of injury or death to civilian and military personnel as well as limit collateral damage to property and local infrastructure.

OPERATIONAL IMPACT

The GBD-IIIC will allow personnel engaged in combat, stability and security, and force protection operations to employ an intense visual cueing device to hail and warn personnel and vehicles at safe standoff distances. The GBD-IIIC, along with other non-lethal weapons systems, will provide EoF capabilities to protect Marines against the threat of Vehicle Borne Improvised Explosive Devices.

PROGRAM STATUS

A total of 1,125 GBD-IIIC laser systems have been procured in fiscal year 2007 with deliveries occurring through fiscal year 2008. Approximately 125 GBD-IIIC systems will be fielded per month through 2nd Qtr fiscal year 2008. An additional 60 systems will be procured for training assets during fiscal year 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	60	0

Developer/Manufacturer:
B.E. Meyers & Co, Inc., Redmond, WA

JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)

DESCRIPTION

The Joint Expeditionary Collective Protection (JECP) will be a family of systems where each system will function as an integrated system of components to perform the core Collective Protection (ColPro) functions of barrier protection, air purification, ingress/egress and overpressure, providing ColPro as a subsystem of some host system or platform.

OPERATIONAL IMPACT

The JECP Increment 1 will provide a versatile, portable capability that will convert common structures and tentage into ColPro systems, or establish standalone ColPro shelters. JECP will also provide flexibility to Joint Expeditionary Forces (JEF) by reducing the need to deploy, move, and maintain large, heavy and complex ColPro systems. In expeditionary environments it will be the primary means of CB-TIM protection if CB Individual Protective Equipment (IPE) is not available or if use of IPE causes mission performance to degrade to an unacceptable level. JECP will shield the JEF to enable them to survive-to-operate, to sustain operation, and to maintain operational tempo by reducing the psychological and physiological stresses associated with extended operations in a contaminated environment.

PROGRAM STATUS

The Joint Requirements Office has entered the Capabilities Development Document into KMDS with document approval planned by end of Feb 2008. The request for proposal release planned for mid-late Dec 2007. MS B planned for Mar 2008.

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
TBD

JOINT MATERIEL DECONTAMINATION SYSTEMS (JMDS)

DESCRIPTION

Joint Materiel Decontamination Systems (JMDS) is a Joint Program consisting of a family of systems which will provide decontamination capabilities for sensitive equipment: optics, communications-electronics, electronics, avionics, computer systems, test equipment, sensitive weapons systems, and aviation life-support equipment; and platform interiors without degradation to the equipment in an immediate, operational, and thorough environment.

OPERATIONAL IMPACT

The Marine Corps will employ the sensitive equipment capability to conduct thorough decontamination of sensitive equipment at ground and shipboard locations as required.

PROGRAM STATUS

Contract Awarded 26 September 2007

Procurement Profile:	FY2008	FY2009
Quantity:	0	0

Developer/Manufacturer:
Teledyne Brown Engineering, Inc.
Los Angeles, CA

BioQuell, Horsham, PA

QuickSilver, Corporate, Abingdon, MD

JOINT SERVICE TRANSPORTABLE DECONTAMINATION SYSTEM SMALL SCALE (JSTDS-SS)

DESCRIPTION

The Joint Service Transportable Decontamination System Small Scale (JSTDS-SS) consists of an applicator, decontaminant, and accessories and will be used to decontaminate non-sensitive military materials that have been exposed to Chemical Biological Radiological Nuclear warfare agents/contamination.

OPERATIONAL IMPACT

JSTDS-SS will be used in the Marine Air Ground Task Force to support operational and thorough decontamination of personnel and equipment in accordance with doctrine established in the Marine Corps Warfighting Publication 3-37.3, NBC Decontamination. JSTDS-SS will replace the currently fielded M17 LDS while reducing the total numbers required.

PROGRAM STATUS

MS C Low Rate Initial Production – May 2006 approval to procure up to 451 systems for Testing

Procurement Profile:	FY2008	FY2009
Quantity:	40	36

Developer/Manufacturer:
DRS, Florence, KY

NON-GASOLINE BURNING OUTBOARD ENGINE (NBOE)



DESCRIPTION

The Non-gasoline Burning Outboard Engine (NBOE) is a 55HP, electronically fuel-injected, outboard engine with multi-fuel capability that will be able to use diesel, JP-5, JP-8, and gasoline fuels with no performance reduction. This engine will allow Marines to deploy globally, using available fuels, while minimizing the safety risks and transportation restraints of current gasoline only engines. This new capability will enable the Marine Corps to comply with the single battlefield fuel initiative.

OPERATIONAL IMPACT

The NBOE will replace the current Small Craft Propulsion System and will be used to power the CRRC during small craft operations. The NBOE will possess the necessary performance capabilities to power a combat loaded CRRC, in support of expeditionary reconnaissance and raid missions. Typical mission profiles will consist of tactical movements of Marine reconnaissance or raiding forces from Over-The-Horizon. The NBOE will also be used in littoral operations in support of Operational Maneuver from the Sea.

PROGRAM STATUS

The NBOE is in the system development and demonstration phase of the acquisition life cycle. The Marine Corps purchased six (6) production-like NBOE in fiscal year 2006 for testing. During fiscal year 2007-2008, Marine Corps Systems Command in conjunction with the Marine Corps Operational Test and Evaluation Activity will be conducting performance testing and Field Users Evaluation to determine its ability to meet all performance requirements. Procurement of production engines will be in mid-fiscal year 2008 based on successful evaluation/testing. Fielding of the NBOE is planned to begin in fourth quarter of fiscal year 2008 and continue to completion in fourth quarter fiscal year 2010.

Procurement Profile:	FY2008	FY2009
Quantity:	0	585

Developer/Manufacturer:
Bombardier Recreational Products

REACTIVE SKIN DECONTAMINATION LOTION (RSDL)

DESCRIPTION

The Reactive Skin Decontamination Lotion (RSDL) is a Joint Program consisting of decontaminant(s) and applicator(s) required to immediately reduce morbidity and mortality resulting from Chemical, Biological, Radiological, and Nuclear (CBRN) contamination of the skin. The RSDL will augment the currently fielded M291 Skin Decontaminating Kit (SDK) through attrition. There is also a RSDL Training (RSDL-T) packet that will be used for training.

OPERATIONAL IMPACT

RSDL is a medical item that will be employed by individual warfighters to immediately reduce morbidity and mortality resulting from CBRN contamination on skin. The primary purpose of RSDL will be to provide improved skin decontamination capabilities over those currently provided by the M291 SDK.

PROGRAM STATUS

RSDL received a Milestone C Full Rate Production approval in March 2007. Marine Corps fielding will not commence until fiscal year 2008 based on receipt of the COE from Marine Corps Combat Development Command.

Procurement Profile:	FY2008	FY2009
Quantity:		
Training Pouches	2,880	1,440
Active Pouches	0	30,240

Developer/Manufacturer:
EZM, Lake Success, NY

SCOUT SNIPER CAPABILITY SET (SSCS)

DESCRIPTION

The Scout Sniper Capability Set (SSCS) funds the development and acquisition of a suite of weapons, optics and equipment that comprise a long range precision rifle capability, a semi-automatic precision rifle capability and all the associated ancillary equipment required to accomplish defined scout sniper mission essential tasks.

OPERATIONAL IMPACT

The SSCS will provide the tools to enable Scout Snipers to fulfill their mission essential tasks, in any environment, in support of their commanders' mission.

PROGRAM STATUS

The items that comprise the SSCS are in various stages of development, procurement and/or fielding. Fielding to full operational capability for all items that comprise the SSCS is expected during fiscal year 2015.

Procurement Profile:	FY2008	FY2009
Quantity:	Various	Various

Developer/Manufacturer:
Various

ULTRA-LIGHTWEIGHT PRECISION AERIAL DELIVERY SYSTEMS (ULW PADS)

DESCRIPTION

The Ultra Light Weight Precision Airdrop System (ULW PADS) is an increment of the family of Global Positioning System guided parachute delivery systems. The JPADS family are steerable, extended glide aerial delivery systems that can deliver critical supplies and equipment when precision and standoff are required due to ground threat, terrain, or winds. The program goal is to assemble a family of guided parachute systems of varying cargo weight capacities, standoff distances, and rates of descent that will offer flexibility to both the air delivery unit and the regional combatant commander. ULW PADS provides a capability not currently existing. It is an airdrop capability that satisfies four identified primary needs/"gaps" in the joint airdrop functional area. These are the need for: 1) increased air carrier survivability; 2) increased ground accuracy; 3) standoff delivery; and 4) improved effectiveness/assessment feedback regarding airdrop mission operations.

OPERATIONAL IMPACT

The precision air delivery capability has been demonstrated in Iraq and Afghanistan and proven a viable alterative to ground transportation. The capability allows sustainment to geographically isolated units or units within a high IED threat area. This capability will enable Marine reconnaissance units to conduct clandestine resupply without compromising their position. The Marine Corps has taken advantage of currently available parachute technology and significantly increased the amount of offset available for aircraft conducting aerial delivery. This will allow aircraft to conduct resupply mission while avoiding potential surface to air threats. The ULW PADS will be used in littoral combat operations in support the warfighting concepts of Operational Maneuver from the Sea, Ship to Objective Maneuver and Distributed Operations.

PROGRAM STATUS

The ULW PADS is in the system development and demonstration phase of the acquisition life cycle. During fiscal year 2008-2009, Marine Corps Systems Command in conjunction with the Marine Corps Operational Test and Evaluation Activity will be conducting performance testing and Field Users Evaluation to determine its ability to meet all performance requirements. Procurement of production systems will be in mid-fiscal year 2009 based on successful evaluation/testing. Fielding of the ULW PADS is planned to begin in third quarter of fiscal year 2009 and continue to completion in fourth quarter fiscal year 2010.

Procurement Profile:	FY2008	FY2009
Quantity:	0	70

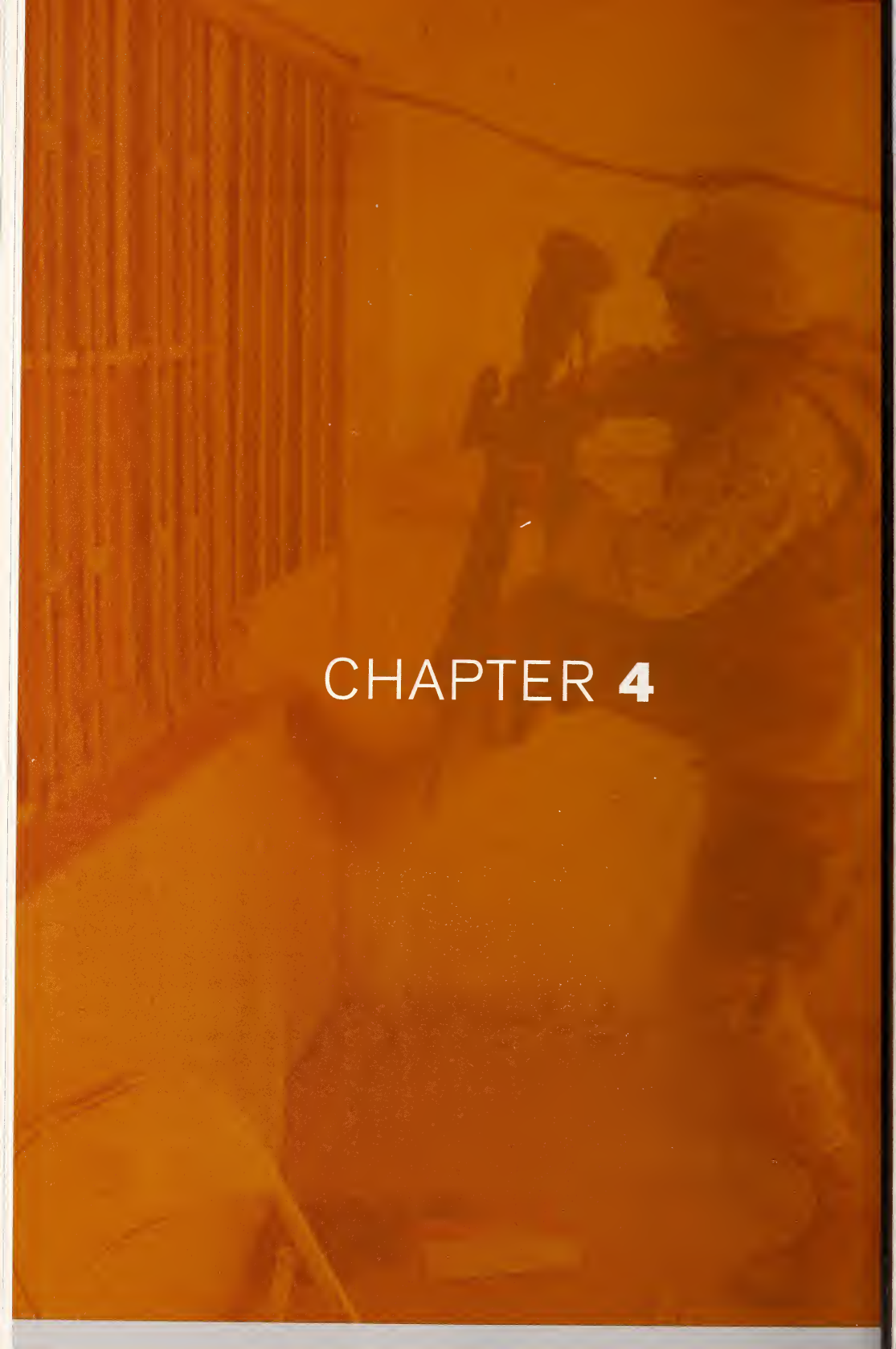
Developer/Manufacturer:
TBD

VH-71 PRESIDENTIAL HELICOPTER REPLACEMENT AIRCRAFT

Marine Helicopter Squadron One (HMX-1) is chartered to provide safe and timely transportation for the President and Vice President of the United States, foreign heads of state, and others as directed by the White House Military Office. When the President is onboard Marine One, this aircraft is the Commander-in-Chief's primary command-and-control platform and must provide him with the flexibility and capabilities necessary to execute the duties of his office. The global nature of these commitments requires HMX-1 aircraft to deploy worldwide and operate in varying environmental and climatic conditions without mission degradation.

Currently, two types of aircraft are utilized by HMX-1 for the presidential support mission: the VH-3D and VH-60N. Numerous modifications and improvements have been incorporated in both aircraft over the past several years to accommodate emerging technologies and additional White House requirements. Although they are robust platforms that enjoy some of the best safety records in the fleet, the VH-3D and VH-60N are aging designs with a finite ability to incorporate new technology. Given the dramatically changed nature of the threat environment since 11 September 2001, the need for improved communications and survival capabilities has grown beyond the VH fleet's structural and performance growth ability.

The Presidential Helicopter Replacement Program (VXX) will replace the VH-3D and VH-60N through an evolutionary acquisition approach to meet schedule requirements of an Initial Operating Capability in October 2009. The goal of the VXX development is to achieve a safe, survivable and capable vertical lift aircraft while providing uninterrupted communications with all required agencies. Its capabilities, which will be delivered in two increments, are divided into four functional areas: operational performance, communications/navigation, survivability and executive accommodations. VXX will have increased capabilities in these areas, while retaining core capabilities carried forward from the VH-3D and VH-60N. The aircraft was designated as VH-71A. The VH-71A will have a 350 nautical mile range, a maximum airspeed of 140 knots, and be capable of carrying 14 passengers.


CHAPTER 4

CURRENT OPERATIONS

Today, the Marine Corps is deployed around the globe engaged in the Long War. With more than 24,000 Marines deployed throughout the U.S. Central Command, in the Middle East and austere locations worldwide, Marines are fighting a cunning and adaptive enemy in increasingly complex forms of warfare.

Marine deployed forces have participated in over sixty Theater Security Cooperation events, which ranged from Mobile Training Teams in Central America to Marine Expeditionary Unit exercises in Africa, Jordan and Qatar and have supported civil, military and humanitarian assistance operations such as New Horizons events in Nicaragua and land mine removal in Azerbaijan.

Figure 4-1 demonstrates the historic nature of the Marine Air Ground Task Force (MAGTF) in supporting U.S. National Security objectives. During 1990 and 91 and again in 2003 to 2007 Marine combat forces were deployed to support Desert Storm, Operation Enduring Freedom, and Operation Iraqi Freedom. During the period 1992 to 2002 Marine units continuously deployed to support humanitarian missions providing much needed assistance in times of crisis involving earthquakes and floods and they assisted in the evacuation of noncombatants. Finally, Marine units were often called upon to provide security deployments to enforce no fly zones, maritime interdiction, counter drug and peacekeeping operations. These trends clearly indicate the continued relevance of the MAGTF to effectively meet the ever changing demands of a dynamic world.

Marine Corps Contingency Deployments

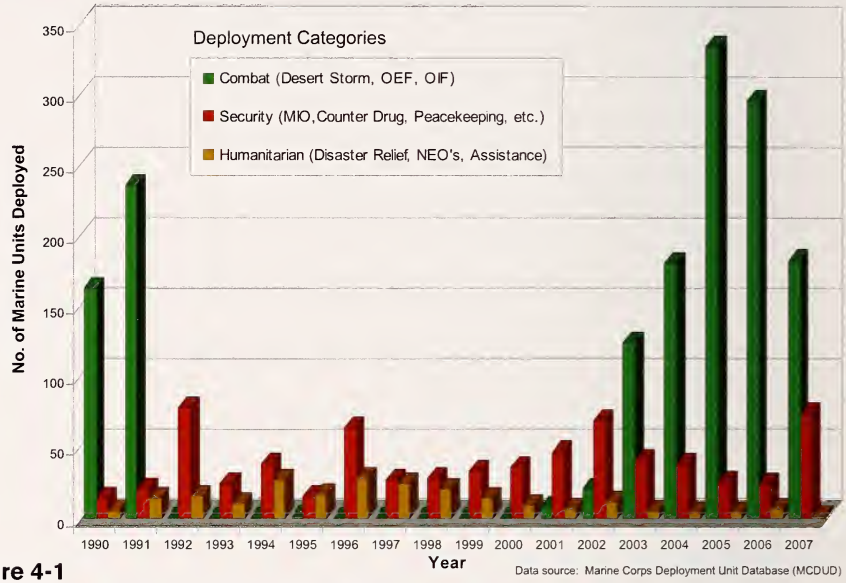


Figure 4-1

In 2007, the Marine Corps was called upon, as in previous years, to participate in a wide range of operations and training exercises to support geographical combatant commanders. These are enumerated below and depicted in the maps that follow.

NORTHCOM

Enduring Operations, Contingencies

- JTF-N
  - MWSS-372, San Diego, CA. Border road repair
  - 4th GSP, San Diego, CA. sensor laydown.
  - 4th GSP, Blaine, WA. sensor laydown ISO US Border Patrol.
  - HMH-769, Blaine, WA. Provide aviation Forward Looking Infrared (FLIR) capability ISO the US Border Patrol.
  - HMM-764, Fresno, CA. Provide aviation reconnaissance in support of the US Forrest Service
  - 6th ESB, Naco, AZ. Provide engineer support for US Border Patrol in order to deter drug/human smuggling along the US/Mexican border.
  - 6th ESB, Annette Island, Alaska. Provided engineering support.
- 2 x FAST platoons were provided to *USS CARL VINSON*, Northrop Grumman NN, VA throughout CY 07
- 1 x FAST platoon provided to *USS RICKOVER*, Portsmouth, NF from 7 SEP-17 OCT 07

Exercises / TSC

- Exercise Mojave Viper 5 thru 18 -07. 1ST BN, 2D MAR; 2D BN, 5TH MAR; 1ST BN, 3D MAR; 1st BN 4th MAR; 3D BN, 7th MAR; 1st BN,1st MAR; 3D BN, 3D MAR; 1st BN, 8th MAR; 1st BN, 7th MAR; 3D LAR BN; 2D RECON BN; 3D BN, 5th MAR; 3D BN, 23D MAR; 3D BN, 2D MAR; 2D BN, 8TH MAR participated for OIF 06-08 PTP.
- PTP Mountain Viper. Afghanistan Mountain training at Hawthorne Army Ammo Depot, NV Apr-Jun 07.
- Exercise Desert Talon 2-07. Aviation and aviation support training for OIF at Marine Corps Air Station Yuma, AZ.
- Exercise WTI, Yuma, Arizona. DET from 1st MAW conducts Weapons Tactics Training during Sep-Oct 07.
- Exercise Cajun Viper 10-07, Fort Polk, LA. DETs from 2ND MARDIV conduct OIF PTP training.

SOUTHCOM

Enduring Operations, Contingencies

- 4 x FAST platoons in support of Naval Station Guantanamo Bay, Cuba.

Exercises / TSC

- Landing attack and subsequent operations ashore Mobile Training Team (MTT) advising the Peruvian Military on ground tactics; specifically, company-sized raid operations from Feb-Mar 07.
- Exercise New Horizons, Nicaragua providing Humanitarian Assistance and exercise-related construction from Feb-May 07.
- Exercise New Horizons. Ma-Jun 07 Humanitarian Assistance and joint training opportunities Mar-Jun 07 Panama.
- Logistics Command MTT Phase 1 Bogotá, Columbia May 07.
- Exercise Tradewinds 07 to provide support to Caribbean forces to develop TTP's for combating transnational threats. Belize City, Belize May 07.
- Marksmanship Assist Visit Covenas, Colombia May 07.
- SGT Major Course MTT supporting the Colombian Marine Corps Apr-May 07.
- COST Team Panama City, Panama May-Jun 07.
- Combat Intel SMEE, Chile May-Jun 07.
- Partnership of the Americas Humanitarian Assistance conducted with Argentina, Chile and Peru in Mejillones, Chile May-Jul 07.
- Dutch Bi-Lat, annual exchange with the Dutch Marine Corps in infantry tactics, techniques and procedures, Curacao, Netherlands Antilles – Jun 07.
- Bulk Fuel Assessment MTT, instructing Colombian armed forces on the TTP's regarding the handling and distribution of bulk fuel, Bogotá Columbia – Jun 07.
- KC-130 support JIATF South, counter narcoterrorism detection and monitoring detachment within the SOUTHCOM AOR, Curacao, Netherlands Antilles – Jun-Jul 07.

- Global Fleet Station – Jul-Oct 07, 8 member USMC Mobile Training Team provided training in small unit ground tactics throughout SOUTHCOM AOR.
- Water Survival MTT, Panama City, Panama – Jul-Aug 07, Water survival TTP exchange.
- Ecuador LASO, Quito, Ecuador. DET from II MEF SOTG conducted company and battalion level infantry tactics, techniques and procedures training during Aug 07.
- NCO Academy SMEE, Covenas, Columbia. DET from TECOM conducted a USMC Squad Leader's Course for Colombian Marine Cadre ISO their NCO Academies during Aug 07.
- Colombia Combined Operational Seminar Team, Bogota, Columbia. DET from MARFORRES conducted staff / operational planning, with a focus on the Marine Corps Planning Process and the Rapid Response Planning Process during Sep 07.

EUCOM

Enduring Operations, Contingencies

- 2 x FAST platoons were provided to Naval Station, Rota as part of their normal rotation.

Exercises / TSC

- Exercise Sharp Focus 07. EUCOM directed, SETAF-led JTF training ISO CONPLAN 4265.
- Humanitarian Mine Action in Gonza, Azerbaijan teaching the tactics, techniques, and procedures for railway mine clearance of unexploded ordnance and explosive remnants of war.
- Bi-lateral training deployment of 2D ANGLICO to Muenster, Germany in Mar 07 supporting a German Panzer Artillery Battalion 215, a German Tornado Squadron, and the USAFE 52D Fighter Wing.
- Mil to Mil Exchange Program in Tirana, Albania to familiarize Albanian military on mine detection and clearance operations as well as enhanced EOD capabilities in Apr 07.
- Exercise African Lion 07. Bi-lateral training with the armed forces of Morocco conducted in Apr 07.
- Exercise Combined Endeavor in Baumholder, Germany and Yerevan, Armenia. JCS sponsored C4 integration exercise designed to test communications interoperability amongst NATO and Partnership for Peace Nations from Apr-May 07.
- Exercise Tartan Eagle 07 in Glasgow, Scotland. Bi-lateral exchange of TTP's with Fleet Protection Group, Royal Marines from Apr-May 07.
- Exercise Noble Shirley 07 conducted at the Counter Terrorism Marksmanship Sniper School on Camp Adams in Beslah, Israel.
- African Contingency Operations and Training Assessment (ACOTA). Providing training to peace keeping forces throughout Africa prior to their deployments.
  - Kayes, Mali Mar 07
  - Accra, Ghana Apr-May 07
  - Thies, Senegal May 07

- HMMWV Familiarization, train Georgian HMMWV drivers prior to 3D Brigade's deployment ISO OIF, Tbilisi, Georgia during Jun 07-Sep 07.
- Mil to Mil Exchange Program in Bucharest, Romania to familiarize field grade officers and SNCOs from the Romanian Ministry of Defense, Directorate Staff, and Joint Operational Command Staff with US military contingency planning and operations.
- CPX in Tbilisi, Georgia to conduct predeployment training ISO the Republic of Georgia 3D BDE staff and Office of Defense Cooperation – Jun 07.
- Exercise Shared Accord 07, Senegal, conducted an exercise focusing on the staff level training of a Senegalese BN – Jun 07.
- Mil to Mil Exchange Program in Tbilisi, Georgia to familiarize the Georgian Armed Forces with the duties and responsibilities of the USMC First Sergeant and Sergeant Major IOT restructure their NCO Corps – Jun 07.
- Exercise MEDCEUR 07, Chisinau, Moldova. A partnership for peace regional medical readiness exercise consisting of remains processing, ID training and mass fatality procedures – Jul-Aug 07.
- Exercise Noble Shirley, Camp Adam and Beslah, Israel. Small unit shooting and movement TTP's in a Counter-Terrorism / urban environment.
- Mortuary Affairs, Landstuhl, Germany. DET from 4th MLG conducted annual training that augments the United States Army Memorial Affairs Activity, Europe during Aug 07.

PACOM

Enduring Operations, Contingencies

- OEF-P (Philippines). USMC provided a 20 pax security team in support of JSOTF-P throughout the CY. Commencing in Aug 06, 3RD RADBN provided a 23 pax detachment conducting their institutional mission in support of JSOTF-P. Both are enduring requirements.
- 2 x FAST platoons deployed as part of their normal rotation to Yokosuka, Japan.
- 3RD Marine Division and I MEF DETS participated as Thai Peace Support Operations (PSO) SMEE, Thailand assisting in PTP of Thai Army personnel.
- VMFA-232 conducted TACAIR Integration providing combat sorties in support of OEF-A / OIF from Apr-Sep 07.
- VMFA-323 conducted TACAIR Integration providing combat sorties in support of OEF-A / OIF from Jan-Aug 07.

Exercises / TSC

- Exercise Cope Tiger 07. VMFA-122 participated in the annual aviation exercise in Khorat, Thailand involving units from USAF, USMC (175 pax), USN, Thailand, and Singapore during Jan-Feb 07.
- Exercise Balikatan 07. Bi-lateral training conducted with the armed forces of the Philippines during Feb – Mar 07 by the 3d MARDIV; 3d MLG.
- Project Friendship. MWSS 172
- Project Friendship II executed from

the *USS BLUERIDGE* during multiple PVST's throughout the Republic of the Philippines focusing on Civil Military Operations and community relations projects.

- Exercise Foal Eagle 07. DETS MAG-12, MACS-4, MWSS-171, VMFA-212, 3D MLG participated in PACOM directed TSC exercise in Mar-Apr 07.
- Exercise Vigilant Pacific in Brisbane, Australia. CI/HUMINT exchange with Australia, Great Britain, and Canada concentrating on PACOM specific scenarios in Apr 07.
- Exercise Cobra Gold 07. 31ST MEU participation in the combined exercise conducted in Thailand Apr-May 07.
- Mongolian Enlisted Leadership Exchange. Conducted in May 07, this bilateral exchange occurred in Mongolia.
- Exercise Khan Quest. MARFORPAC participation in MCMAP training conducted in Mongolia.
- Exercise Talisman Saber 07. 31st MEU participated in the combined exercise in Australia Jun-Jul 07.
- Philippine Marine Air Ground Task Force Tactical Warfare Simulation. 3d MARDIV participated in a CPX with a focus on Battalion / Regimental staff operations in Philippines – Jun 07.
- Ulchi Focus Lens 07, Korea. CPX designed to train staffs in the exercise plans, procedures and concepts required to defend the Republic of Korea in accordance with OPLANs 5026/27. The CPX focuses on strategic and operational aspects of military operations with the ROK Government and the Combined Forces Command – Jul-Sep 07, DETs from 3D MLG and 1st MAW.
- Exercise Tempest Express 07-01, Mongolia. Supports Global Peace Operations Initiative consisting of a multinational command post exercise, a field training exercise, and humanitarian / civic assistance projects – Aug 07, DET from MWSS-172.
- Exercise Khaan Quest 07, Mongolia. Multinational Peace Support Operations exercise co-sponsored by the Mongolian Armed Forces and PACOM – Aug 07, DET from MWSS-172.
- Pacific Partnership 07-01, USS Peleliu, May-Sep 07, DETs from MWSG-17 & MLG.
- USS Pearl Harbor, Partnership of the Americas, May-Sep 07.
- Bangladesh Interoperability Exercise, Bangladesh. DET from 3RD MLG conducted an engineering subject matter expert exchange (SMEE) during Aug-Sep 07.
- Thailand MAGTF Tactical Warfare Simulation, Thailand. DET from 3RD MARDIV conducted a Bi-lateral staff planning / execution exercise, designed to enhance interoperability and promote theater security cooperation during Aug-Sep 07.
- Korean Incremental Training Program, Pohang, Korea. DET from 3RD MLG conducted a Bi-lateral training exercise designed to increase interoperability with the ROK. Exercise consisted of live-fire and maneuver and mountain warfare training during Sep-Oct 07.

CENTCOM

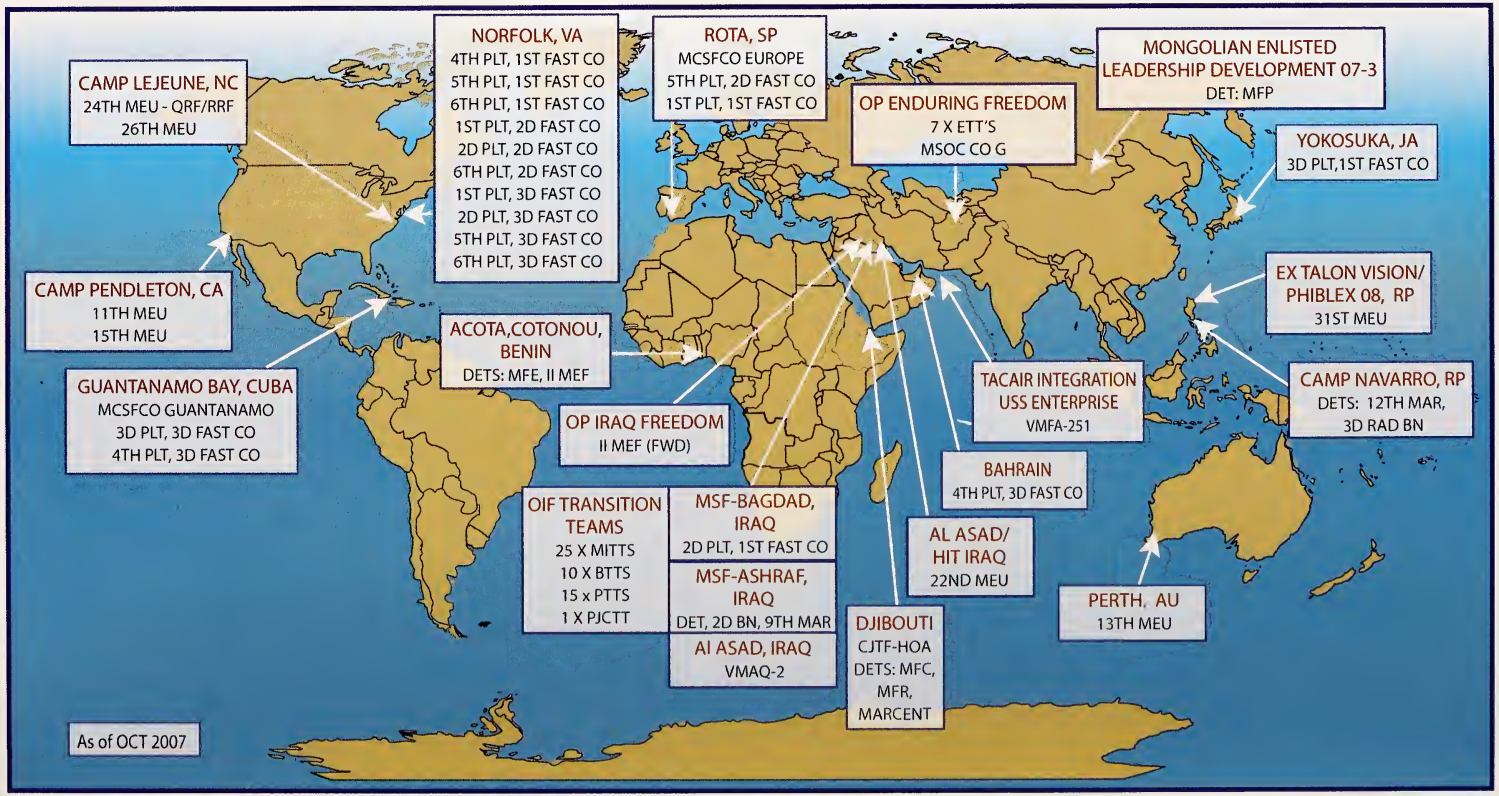
Enduring Operations, Contingencies

- Manda Bay, Kenya. USMC provided 3 x CH-53E helicopter detachment until XXX 07.
- USMC also provided 7 x Afghan National Army (ANA) Embedded Training Teams (ETT's), 16 pax each, to train and mentor the Afghan Army. USMC also providing staff member to Combined Forces Command, Afghanistan.
- Iraqi Security Force (ISF) Transition Teams consisted of:
  - 25 Military Transition Teams (MiTT's)
  - 10 Border Transition Teams (BTT's)
  - 1 Provincial Police Transition Team
  - 1 Provincial Joint Coordination Transition Team
  - 9 District Police Transition Teams
  - 9 Station Police Transition Teams
- Afghanistan Embedded Training Teams (ETTs) consisted of:
  - 1 Corps Embedded Training Team
  - 6 Battalion Embedded Training Teams
- As part of the normal rotation of forces, 1 x FAST (Fleet Anti-terrorism and Security Team) platoon was deployed in Bahrain.
- Marine Electronic Attack Squadron (VMAQ-1) support of CFACC (Combined Force Air Component Commander) operations ISO OIF from Jan to Aug 07.
- Marine Electronic Attack Squadron (VMAQ-2) support of CFACC (Combined Force Air Component Commander) operations ISO OIF from Aug 07 to Jan 08.
- 15th MEU extended in MNF-W, Al Anbar Province, Iraq until 30 Mar 07.
- MSF-Baghdad, Amemb, Baghdad, Iraq Mar-Aug 07, DET from 2/9.
- MSF-Ashraf, Camp Ashraf, Iraq Apr-Nov 07.
- OIF, II MEF (FWD) Camp Fallujah, Iraq from 9 Feb 07 to Feb 08.
- 13th MEU extended in MNF-W, Al Anbar Province, Iraq until Oct 07.
- MSF-Baghdad, Iraq, 1F2, Aug 07-Jan 08.

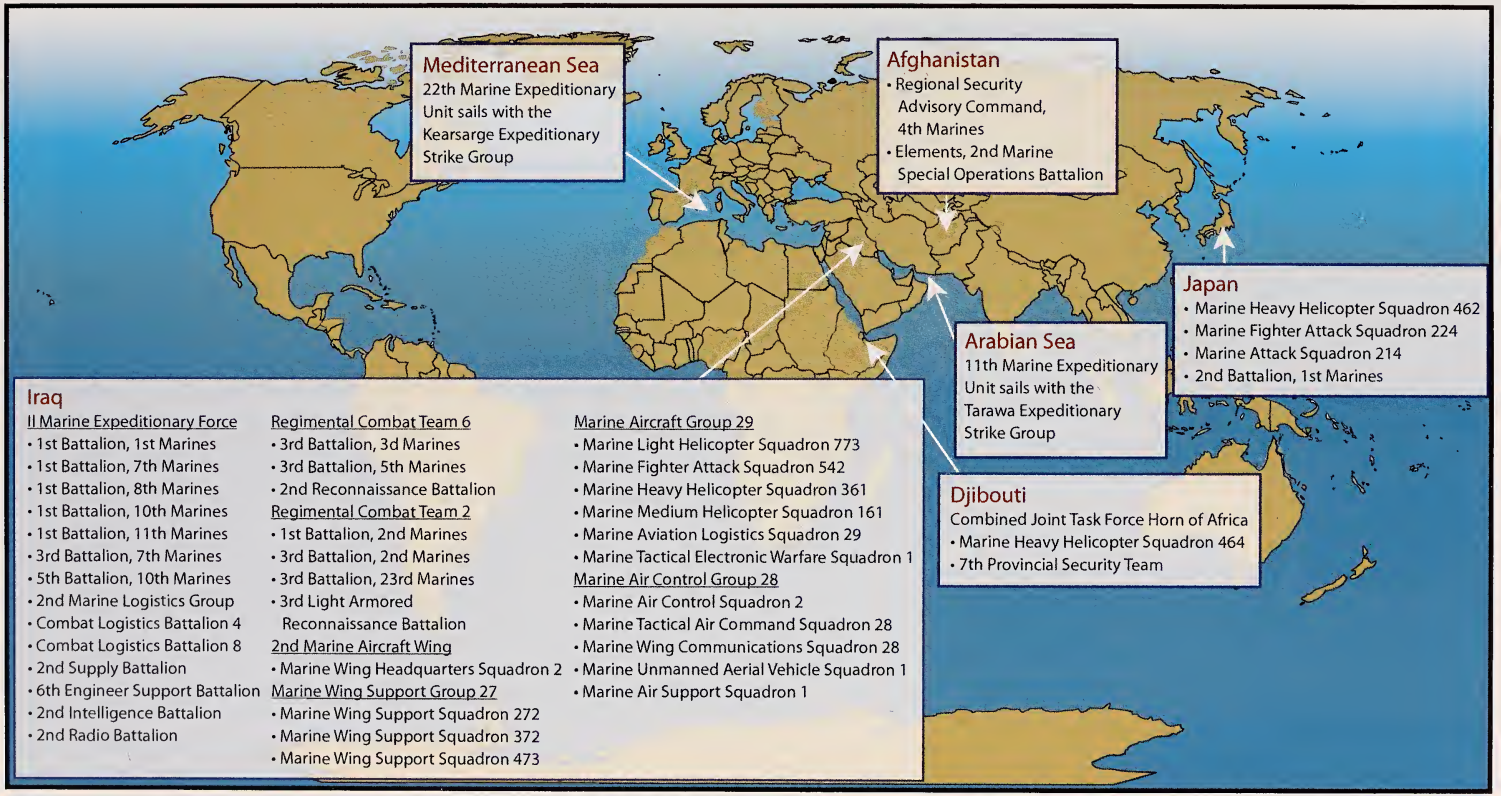
Exercises / Theater Security Cooperation (TSC)

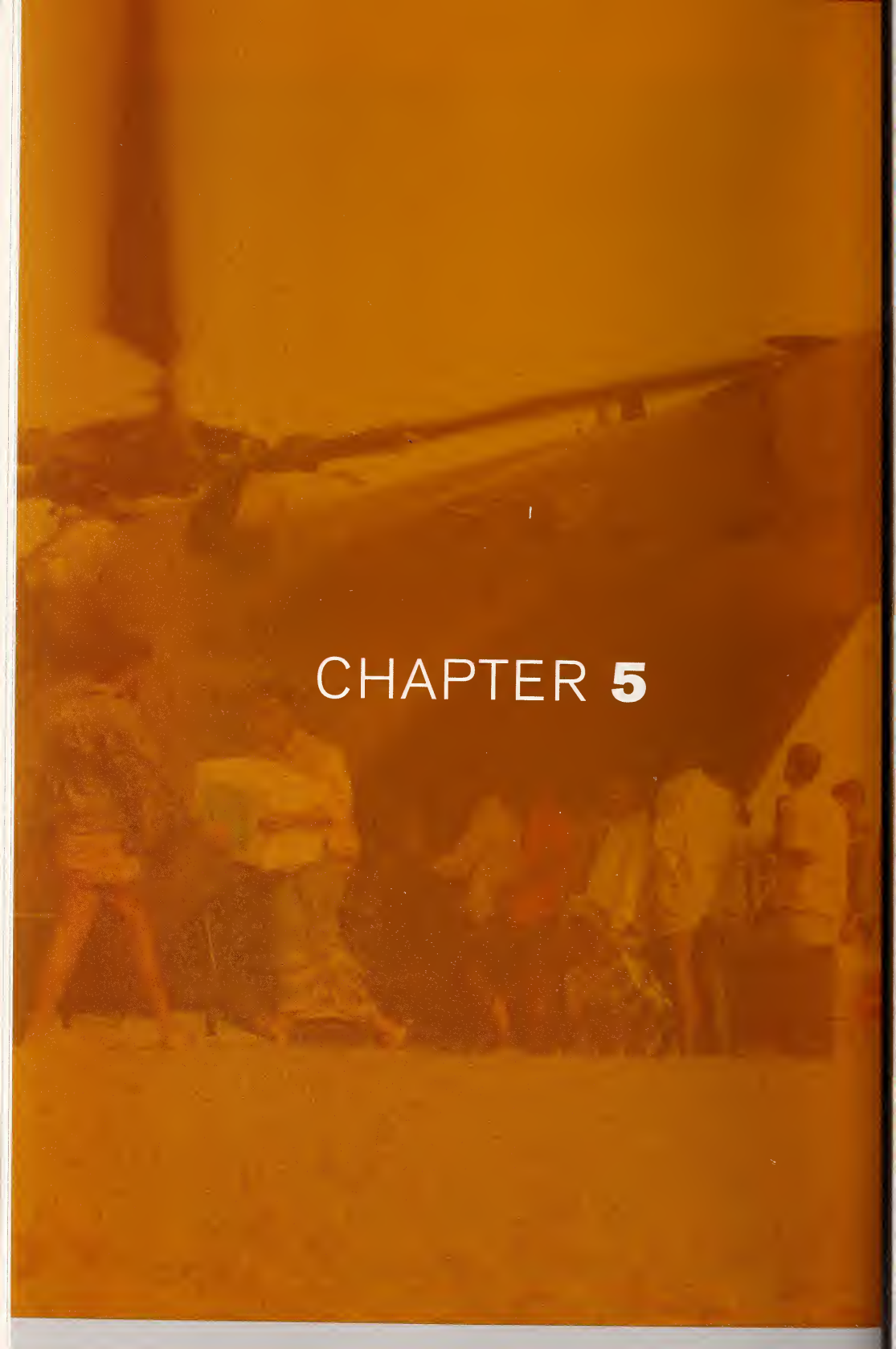
- Exercise Eastern Maverick. 26TH MEU(SOC) bi-lateral training with the armed forces of Qatar during Apr 07.
- Exercise Image Nautilus. 26TH MEU (SOC) bi-lateral training with the Djiboutian armed forces during Mar 07.
- Exercise Edged Mallet. 26TH MEU (SOC) East African training exercise conducted in Kenya during Mar 07.
- Exercise Infinite Moonlight. 26TH MEU (SOC) conducted training exercise with Royal Jordanian Armed Forces, promoting interoperability, tactical proficiency, strengthen mil-to-mil relationships and enhance regional security during May 07.
- Exercise Image Nautilus, 22ND MEU (SOC), Djibouti, during Dec 07.

Selected Marine Corps Deployments 2007



Early 2008 Marine Corps Deployments





CHAPTER **5**

MARINE CORPS ALMANAC

This chapter provides a brief snapshot of the Marine Corps today. It includes a brief description of our Marines' demographics, our fiscal posture, and the age of some key equipment. As such it gives some insight into the resources that we fuse together to create one of the world's premier fighting forces.

Officer Accessions in Fiscal Year 2007

Type	Number
United States Naval Academy	215
NROTC	244
Platoon Leaders Course	674
Officer Candidate Course	517
MECEP	115
ECP	56
MCP	16
Warrant Officer Program	268
Other	7
Total	2,112

Officer Age Distribution

Age	Number	Percent
21	40	0.20%
22	511	2.59%
23	807	4.09%
24	913	4.63%
25	1,005	5.10%
26	1,005	5.10%
27	984	4.99%
28	935	4.74%
29	895	4.54%
30	851	4.32%
31-35	4,359	22.12%
36-40	4,184	21.23%
41+	3,220	16.34%
Total	19,709	100.00%

Officer Grade Distribution

Rank	Number	Percent
WO1	232	1.18%
CWO2	758	3.85%
CWO3	540	2.74%
CWO4	272	1.38%
CWO5	87	0.44%
2ndLt	3,009	15.27%
1stLt	2,941	14.92%
Capt	5,602	28.42%
Maj	3,632	18.43%
LtCol	1,853	9.40%
Col	699	3.55%
Gen	84	0.43%
Total	19,709	100.00%

Officer Occupational Field Distribution

Primary MOS Code	Description	Female Officer	Male Officer	Total Officer
01	Personnel & Admin	173	542	715
02	Intelligence	49	999	1,048
03	Infantry	0	2,218	2,218
04	Logistics	156	1,266	1,422
06	C2 Systems	80	1,008	1,088
08	Field Artillery	0	832	832
09	Training	1	32	33
11	Utilities	2	40	42
13	Engineer	38	533	571
18	Tank & AAV	0	325	325
21	Ordnance	1	133	134
23	Ammunition & EOD	2	108	110
26	SIGINT	1	32	33
28	Grd. Electronics Maint.	4	103	107
30	Supply Admin. & Ops.	74	601	675
31	Traffic Mgt.	4	24	28
33	Food Service	3	34	37
34	Financial Mgt.	37	308	345
35	Motor Transport	2	99	101
41	Marine Corps Community Services	4	8	12
43	Public Affairs	33	107	140
44	Legal Services	61	455	516
46	Combat Camera	3	16	19
48	Recruiting	0	16	16
55	Music	1	20	21
57	NBC	1	109	110
58	MP & Corrections	17	206	223
59	Electronics Maint.	3	69	72
60	Aircraft Maint.	19	385	404
63	Avionics (OMA)	2	123	125
64	Avionics (IMA)	0	1	1
65	Aviation Ordnance	2	85	87
66	Aviation Logistics	25	232	257
68	METOC Services	1	30	31
70	Airfield Services	2	37	39
72	Air C2	51	481	532
73	Navigation Officer	0	15	15
75	Pilot/NFOs	155	5,345	5,500
80	Acquisitions	128	1,597	1,725
Total		1,135	18,574	19,709

Officer Gender Distribution

	Number	Percent
Female	1,135	5.76%
Male	18,574	94.24%
Total	19,709	100.00%

Officer Grade by Gender

Rank	# Male	% Male	# Female	% Female	Total
WO1	223	1.20%	9	0.79%	232
CWO2	704	3.79%	54	4.76%	758
CWO3	510	2.75%	30	2.64%	540
CWO4	261	1.41%	11	0.97%	272
CWO5	82	0.44%	5	0.44%	87
2ndLt	2,775	14.94%	234	20.62%	3,009
1stLt	2,699	14.53%	242	21.32%	2,941
Capt	5,222	28.11%	380	33.48%	5,602
Maj	3,526	18.98%	106	9.34%	3,632
LtCol	1,812	9.76%	41	3.61%	1,853
Col	679	3.66%	20	1.76%	699
Gen	81	0.44%	3	0.26%	84
Total	18,574		1,135		19,709

Officer Marine Families

Civilian Spouses	Military Spouses	Children/ Other Dependents
12,684	839	20,957

Officer Racial and Gender Distribution

Rank	White Female	White Male	Black Female	Black Male	Hispanic Female	Hispanic Male	Other Female	Other Male	Total
WO/CWO	60	1,249	26	254	19	163	4	114	1,889
2ndLt	181	2,288	15	107	19	159	19	221	3,009
1stLt	198	2,239	10	103	22	172	12	185	2,941
Capt	259	4,167	44	328	36	357	41	370	5,602
Maj	81	2,918	6	239	7	172	12	197	3,632
LtCol	33	1,599	6	73	0	58	2	82	1,853
Col	16	626	2	20	0	13	2	20	699
Gen	2	74	0	5	1	2	0	0	84
Total	830	15,160	109	1,129	104	1,096	92	1,189	19,709

Enlisted Accessions

Active accessions	35,603
Reserve accessions	5,289
Total	40,892

Enlisted Age Distribution

Age	Number	Percent
17	530	0.32%
18	9,979	5.98%
19	17,006	10.20%
20	20,353	12.20%
21	22,032	13.21%
22	19,372	11.62%
23	13,666	8.19%
24	10,161	6.09%
25	8,181	4.91%
26-30	23,656	14.18%
31-35	11,548	6.92%
36-40	6,955	4.17%
41+	3,342	2.00%
Total	166,781	100.00%

Enlisted Grade Distribution

Rank	Number	Percent
Pvt	15,824	9.49%
PFC	21,015	12.60%
LCpl	38,917	23.33%
Cpl	36,076	21.63%
Sgt	27,669	16.59%
SSgt	14,021	8.41%
GySgt	8,076	4.84%
1stSgt/MSgt	3,618	2.17%
SgtMaj/MGySgt	1,565	0.94%
Total	166,781	100.00%

Enlisted Occupational Field Distribution

Primary MOS Code	Description	Female Enlisted	Male Enlisted	Total
01	Personnel & Admin	1,648	6,754	8,402
02	Intelligence	226	2,244	2,470
03	Infantry	0	33,665	33,665
04	Logistics	415	3,378	3,793
05	MAGTF Plans	24	295	319
06	Communications	982	11,528	12,510
08	Field Artillery	0	4,138	4,138
11	Utilities	265	2,421	2,686
13	Engineer	200	7,410	7,610
18	Tank & AAV	0	2,495	2,495
21	Ordnance	58	3,904	3,962
23	Ammunition & EOD	174	1,856	2,030
26	SIGINT	237	2,037	2,274
28	Grd. Electonics Maint.	90	3,802	3,892
30	Supply Admin & Ops	1,231	5,556	6,787
31	Traffic Mgt.	121	530	651
33	Food Service	311	2,030	2,341
34	Financial Mgt.	175	1,086	1,261
35	Motor Transport	568	12,127	12,695
41	Marine Corps Community Service	15	140	155
43	Public Affairs	108	365	473
44	Legal Services	115	454	569
46	Visual Information (Combat Camera)	85	361	446
55	Music	169	813	982
57	NBC	71	941	1,012
58	MP & Correction	308	3,624	3,932
59	Electronics Maint.	88	1,529	1,617
60	Aircraft Maint.	373	4,841	5,214
61	Aircraft Maint. Helo/Tiltrotor	135	5,316	5,451
62	Aircraft Maint. Fixed wing	100	3,816	3,916
63	Avionics (OMA)	261	3,331	3,592
64	Avionics (IMA)	210	2,380	2,590
65	Aviation Ordnance	176	2,487	2,663
66	Aviation Logistics	396	1,715	2,111
68	METOC Services	21	318	339
70	Airfield Services	206	2,100	2,306
72	Air C2	92	1,798	1,890
73	Enlisted Flight Crew	8	279	287
80	Acquisitions	826	10,387	11,213
84	Category "B"	8	491	499
89	ID & Reporting	79	1,464	1,543
Total		10,575	156,206	166,781

Enlisted Gender Distribution

	Number	Percent
Female	10,575	6.34%
Male	156,206	93.66%
Total	166,781	100%

Enlisted Grade by Gender

Rank	# Male	% Male	# Female	% Female	Total
Pvt	14,938	9.56%	886	8.38%	15,824
PFC	19,563	12.52%	1,452	13.73%	21,015
LCpl	36,499	23.37%	2,418	22.87%	38,917
Cpl	33,538	21.47%	2,538	24.00%	36,076
Sgt	25,898	16.58%	1,771	16.75%	27,669
SSgt	13,211	8.46%	810	7.66%	14,021
GySgt	7,629	4.88%	447	4.23%	8,076
1stSgt/MSgt	3,425	2.19%	193	1.83%	3,618
SgtMaj/MGySgt	1,505	0.96%	60	0.57%	1,565
Total	156,206		10,575		166,781

Enlisted Marine Families

Civilian Spouses	Military Spouses	Children/ Other Dependents
63,732	6,664	76,931

Enlisted Racial and Gender Distribution

Rank	White Female	White Male	Black Female	Black Male	Hispanic Female	Hispanic Male	Other Female	Other Male	Total
Pvt	691	11,621	130	1,291	29	1,201	36	825	15,824
PFC	1,022	14,969	204	1,515	114	1,739	112	1,340	21,015
LCpl	1,483	26,233	291	2,452	416	3,984	228	3,830	38,917
Cpl	1,447	22,695	338	2,677	480	4,359	273	3,807	36,076
Sgt	838	15,796	324	3,447	396	4,322	213	2,333	27,669
SSgt	350	7,659	201	2,320	167	2,215	92	1,017	14,021
GySgt	179	4,552	150	1,478	78	1,063	40	536	8,076
1stSgt/MSgt	88	1,960	73	863	24	382	8	220	3,618
SgtMaj/MGySgt	27	843	21	450	9	134	3	78	1,565
Total	6,125	106,328	1,732	16,493	1,713	19,399	1,005	13,986	166,781

Selected Marine Corps Reserve Officer Age Distribution

Age	Number	Percent
60	3	0.09%
59	2	0.06%
58	2	0.06%
57	2	0.06%
56	1	0.03%
55	2	0.06%
54	5	0.15%
53	32	0.97%
52	32	0.97%
51	42	1.27%
50	50	1.52%
49	78	2.36%
48	96	2.91%
47	95	2.88%
46	138	4.18%
45	138	4.18%
44	176	5.33%
43	213	6.46%
42	213	6.46%
41	206	6.24%
40	206	6.24%
39	206	6.24%
38	232	7.03%
37	197	5.97%
36	177	5.37%
35	175	5.30%
34	119	3.61%
33	114	3.46%
32	100	3.03%
31	62	1.88%
30	58	1.76%
29	56	1.70%
28	39	1.18%
27	14	0.42%
26	11	0.33%
25	2	0.06%
24	1	0.03%
23	4	0.12%
Total	3,299	100.00%

Selected Marine Corps Reserve Officer Grade Distribution

Rank	Number	Percent
WO1	21	0.64%
CWO2	146	4.43%
CWO3	92	2.79%
CWO4	61	1.85%
CWO5	20	0.61%
2ndLt	22	0.67%
1stLt	22	0.67%
Capt	518	15.70%
Maj	954	28.92%
LtCol	1070	32.43%
Col	363	11.00%
B Gen	6	0.18%
M Gen	4	0.12%
Total	3,299	100.00%

Selected Marine Corps Reserve Officer Occupational Field Distribution

Primary MOS Code	Description	Female Enlisted	Male Enlisted	Total
01	Personnel & Admin	54	83	137
02	Intelligence	15	217	232
03	Infantry	0	399	399
04	logistics	40	219	259
05	MAGTF Plans	0	1	1
06	Communications	12	158	170
08	Field Artillery	0	184	184
11	Utilities	0	10	10
13	Engineer	3	119	122
18	Tank & AAV	0	86	86
21	Ordnance	0	9	9
23	Ammunition & EOD	0	8	8
25	Network Mgt.	0	6	6
26	SIGINT	0	2	2
28	Grd. Electronics Maint.	0	12	12
30	Supply Admin & Ops.	9	122	131
31	Traffic Mgt.	0	1	1
33	Food Service	0	3	3
34	Financial Mgt.	4	29	33
35	Motor Transport	0	18	18
40	Data Systems	0	2	2
43	Public Affairs	8	17	25
44	Legal Services	10	177	187
46	Combat Camera	0	1	1
57	NBC	0	35	35
58	MP and Corrections	6	37	43
59	Electronics Maint.	0	2	2
60	Aircraft Maint.	2	47	49
63	Aircraft Maint. Helo/Tiltrotor	1	7	8
65	Aircraft Maint. Fixed Wing	0	9	9
66	Aviation Logistics	3	25	28
68	METOC SVS	0	1	1
70	Airfield Services	0	6	6
72	Air C2	9	99	108
73	Navigation Officer	0	4	4
75	Pilots/Naval Flight Officers	10	616	626
80	Acquisitions	18	323	341
99	ID and Reporting	0	1	1
Total		204	3,095	3,299

Selected Marine Corps Reserve Enlisted Age Distribution

Age	Number	Percent
58	2	0.01%
57	3	0.01%
56	4	0.01%
55	7	0.02%
54	5	0.01%
53	10	0.03%
52	4	0.01%
51	17	0.05%
50	24	0.07%
49	23	0.07%
48	38	0.11%
47	54	0.15%
46	61	0.17%
45	82	0.23%
44	96	0.27%
43	127	0.36%
42	149	0.42%
41	175	0.50%
40	203	0.58%
39	216	0.61%
38	252	0.72%
37	299	0.85%
36	328	0.93%
35	307	0.87%
34	333	0.95%
33	392	1.11%
32	454	1.29%
31	538	1.53%
30	709	2.01%
29	732	2.08%
28	966	2.74%
27	1269	3.60%
26	1731	4.92%
25	2507	7.12%
24	3467	9.85%
23	3969	11.27%
22	4025	11.43%
21	3893	11.06%
20	3499	9.94%
19	2822	8.01%
18	1361	3.86%
17	61	0.17%
Total	35,214	100.00%

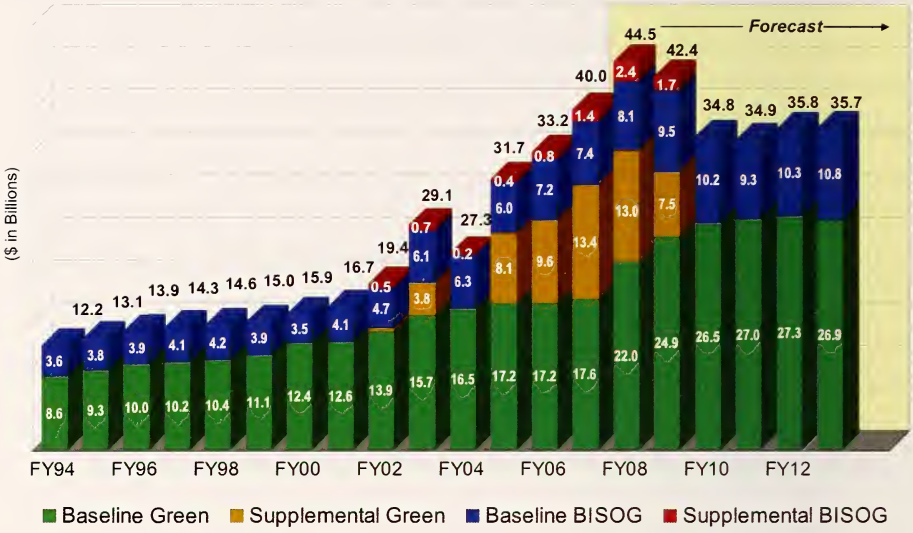
Selected Marine Corps Reserve Enlisted Grade Distribution

Rank	Number	Percent
Pvt	2100	5.96%
PFC	3753	10.66%
LCpl	15075	42.81%
Cpl	5890	16.73%
Sgt	4668	13.26%
SSgt	1928	5.48%
GySgt	1131	3.21%
1stSgt/MSgt	486	1.38%
SgtMaj/MGySgt	183	0.52%
Total	**35,214**	**100.00%**

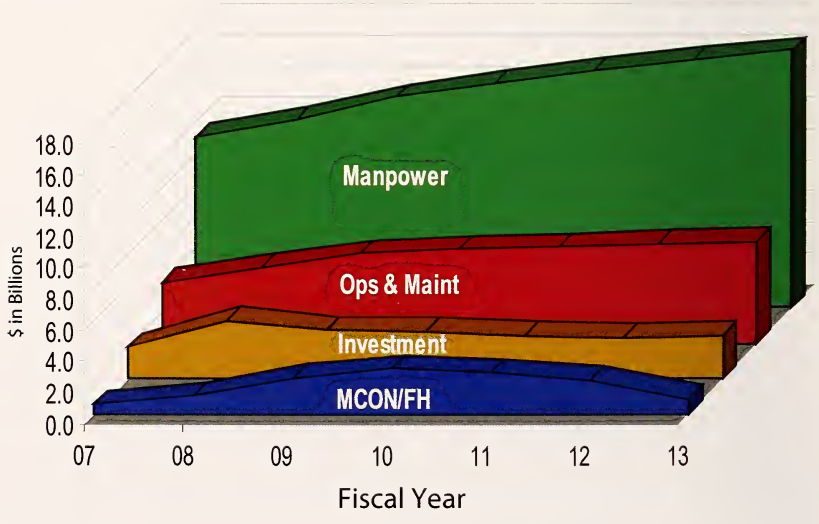
Selected Marine Corps Reserve Enlisted Occupational Field Distribution

Primary MOS Code	Description	Female Enlisted	Male Enlisted	Total
01	Personnel & Admin	358	1280	1638
02	Intelligence	26	454	480
03	Infantry	0	8024	8024
04	Logistics	115	1046	1161
05	MAGTF Plans	5	46	51
06	Communications	133	2994	3127
08	Field Artillery	0	1266	1266
11	Utilities	71	659	730
13	Engineer	111	2882	2993
18	Tank & AAV	0	708	708
21	Ordnance	13	874	887
23	Ammunition & EOD	42	450	492
25	Network Mgt.	0	1	1
26	SIGINT	9	29	38
28	Grd. Electronics Maint.	8	652	660
30	Supply Admin & Ops.	232	1206	1438
31	Traffic Mgt.	42	107	149
33	Food Service	45	557	602
34	Financial Mgt.	5	28	33
35	Motor Transport	144	3855	3999
40	Data Systems	0	2	2
43	Public Affairs	7	19	26
44	Legal Services	3	12	15
46	Combat Camera	6	11	17
55	Music	0	1	1
57	NBC	9	191	200
58	MP and Corrections	41	789	830
59	Electronics Maint.	2	103	105
60	Aircraft Maint.	29	385	414
61	Aircraft Maint Helo/Tiltrotor	9	433	442
62	Aircraft Maint. Fixed Wing	3	269	272
63	Avionics (OMA)	14	210	224
64	Avionics (IMA)	5	168	173
65	Aviation Ordnance	7	222	229
66	Aviation Supply	38	231	269
68	METOC Services	8	49	57
70	Airfield Services	39	305	344
72	Air C2	23	215	238
73	Enlisted Flight Crew	1	43	44
80	Acquisitions	112	2433	2545
84	Category "B"	2	36	38
89		4	224	228
99	ID and reporting	2	22	24
Total		1,723	33,491	35,214

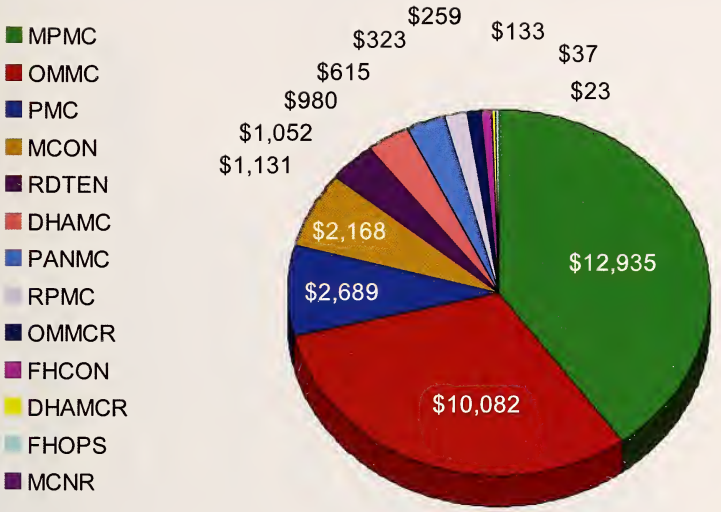
Marine Corps Fiscal Resource Overview



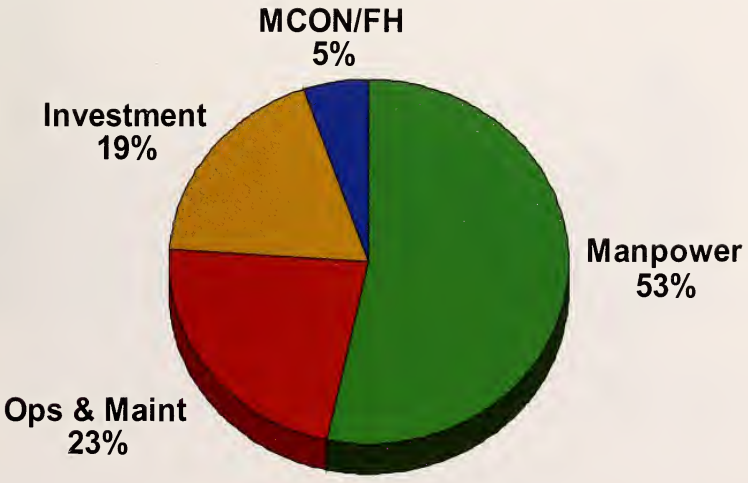
Marine Corps Fiscal Landscape (Baseline Only)



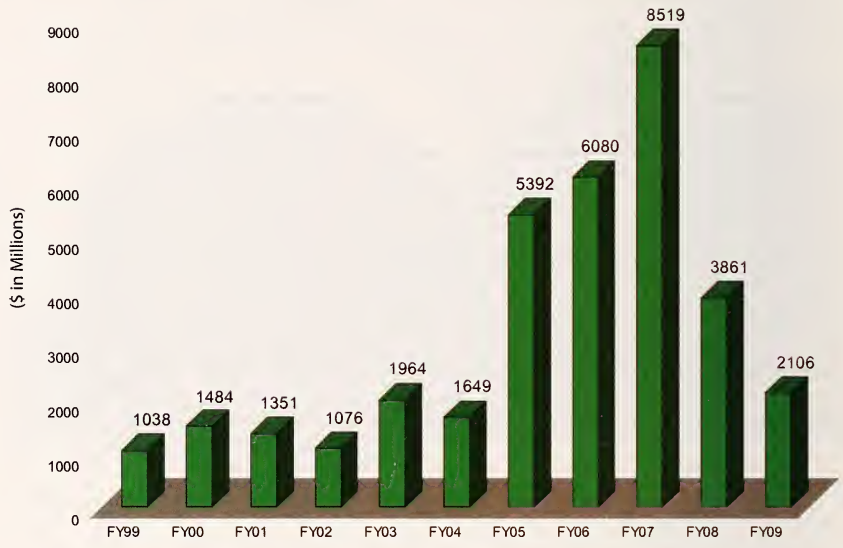
Marine Corps Fiscal Year 2009 Total TOA (Rounded to $ Millions)



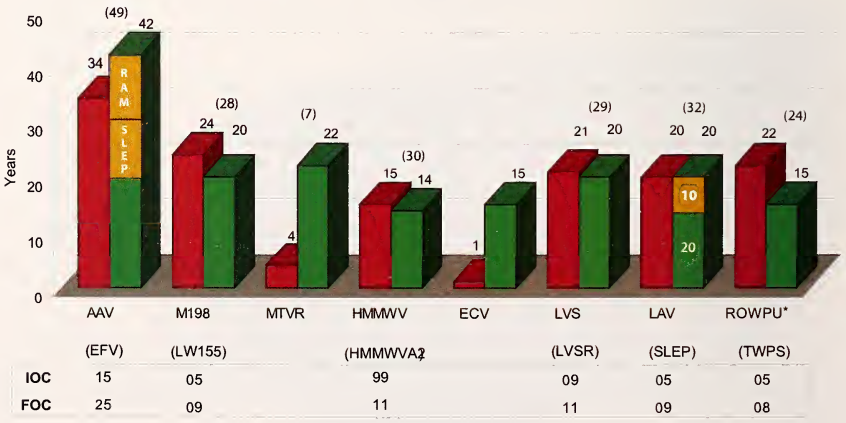
Marine Corps Fiscal Year 2009 Appropriations (Baseline Only)



Marine Corps Procurement Summary ($ in Millions)



Marine Corps Selected Ground Equipment Aging

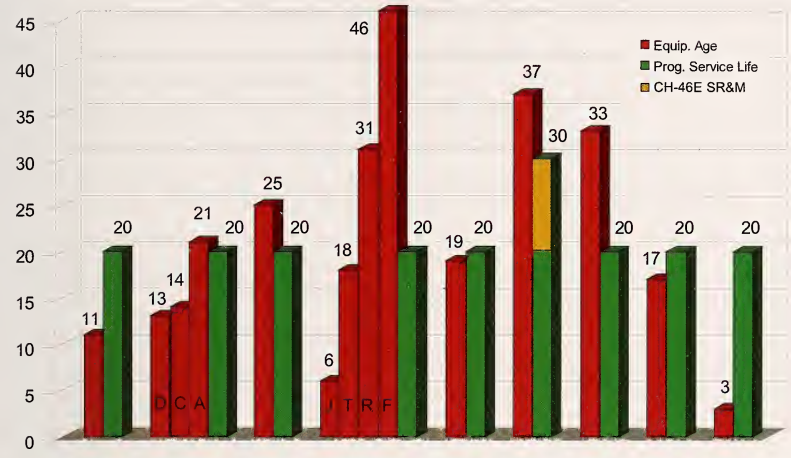


	AAV (EFV)	M198 (LW155)	MTVR	HMMWV (HMMWVA2)	ECV	LVS (LVSR)	LAV (SLEP)	ROWPU* (TWPS)
IOC	15	05		99		09	05	05
FOC	25	09		11		11	09	08

AVG EQUIP AGE
PROG SERVICE LIFE
SERVICE LIFE EXTENSION PROGRAM (SLEP)
(XX) AGE OF OLDEST IN INVENTORY

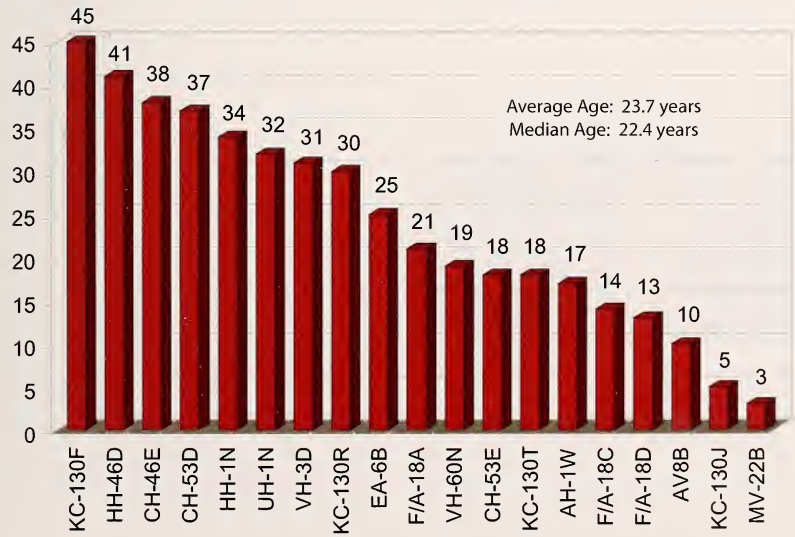
*The ROWPU is still utilized in the operating forces and has not been fully replaced by the TWPS.

Marine Corps Aviation Combat Element Average Equipment Age



	AV-8B*	F/A-18s	EA-6B	KC-130s	CH-53E	CH-46E	UH-1N	AH-1W	MV-22B
Replacement System		JSF		KC-130J	CH-53K		UH-1Y	AH-1Z	MV-22
IOC		2012		2005	2015		2008	2011	2007
FOC		2024		2009	2021		2012	2018	2018
Objective		420		79	156		100*	180*	360

Marine Corps Average Aircraft Age



APPENDIX A Other Supporting Programs

MARINE CORPS EMBASSY SECURITY GROUP

In few places can the effect of the 'Strategic Corporal' be more readily seen than with the Marine Security Guard who stands alone at Post One, responsible for safeguarding the nation's secrets and protecting the hundreds of unarmed American civilians within his or her diplomatic facility.

Dedicated and versatile, Marine Security Guards have proven themselves invaluable, and the need for them continues to grow. Marines currently stand post at 149 embassies and consulates in 133 countries, and detachments are set to commence operations at ten additional posts in the coming decade.

Overarching this global array of detachments is the Marine Corps Embassy Security Group (MCESG). MCESG works closely with the Department of State's Diplomatic Security Service at every level, with both their training and operational arms, to ensure that each embassy guard is ready and equipped for the challenges they are likely to face.



MCESG evolved from the Marine Security Guard Battalion (MSG Bn) which first provided Marines to diplomatic facilities in 1949 with the primary mission of safeguarding our nation's classified information. The primary mission has not changed, but the 'can-do' spirit that prepared embassy guards for their mission at the program's outset was augmented by a formal training program in the 1950's, and further refined with a comprehensive candidate screening program in the 1980's.

It was not until the Global War on Terrorism began that MSG Bn (as MCESG was still designated) accelerated its transformation to meet the threat of sudden attack by terrorists intent on wholesale execution of Americans.

As a result, in 2004, when a team of al Qaeda terrorists assaulted the United States consulate in Jeddah, Saudi Arabia, a lone MSG Sergeant barred their entry, reacted his detachment then, between exchanges of Beretta, shotgun and Kalashnikov fire, assisted his team in shepherding embassy personnel to safety and protecting them until the terrorist threat was eliminated. That Marine, Sergeant Manuel Matos, was awarded the Bronze Star with combat 'V' for his demonstrated courage and quick-thinking under fire.

The re-designation of MSG Battalion to Marine Corps Embassy Security Group this year was an overdue acknowledgement that the Battalion had not only outgrown battalion size—consisting at the time of nine "companies" each commanded by a Lieutenant Colonel—but also required diverse and specialized functions—as demonstrated by their heavily-tasked Behavioral Science, Legal, Comptroller and other special staff sections. MSG Bn evolved into MCESG through the expanding number of detachments, and through the diverse and complex

international challenges overcome in the past decades.

Today, United States citizens and sensitive diplomatic information remain valuable targets for foreign intelligence agents, criminals and terrorists. Embassy guards have always been skilled in protecting against foreign intelligence collection, but now they must also be well-schooled in anti-terrorism and internal defense.

By necessity, Embassy detachments remain small, and so when assaults occur, Marine Security Guards expect to be outnumbered by their opponents. Through teamwork, technology, training and leadership, however, the small detachment acts with a single mindset. Intimately familiar with the building they must defend, the Marine Security Guard Detachment is a formidable adversary to any foe, and an asset to United States diplomacy.

MARINE BARRACKS 8TH AND I

Established in 1801, Marine Barracks Washington D.C., is the "Oldest Post of the Corps" and has been the residence of every Commandant of the Marine Corps since 1806. The selection of the site for the barracks was a matter of personal interest to President Thomas Jefferson, who rode through Washington with Lieutenant Colonel Commandant Bur-rows in search of a suitable location. The site now occupied was chosen due to its location near the Navy Yard and the fact that it was within easy marching distance of the Capitol. The Marine Barracks has also been home of the United States Marine Band since 1801. Shortly after its formation, the Band was requested to play for President John Adams at the Executive Mansion. This White House engagement began a tradition that has become so established that today the names "Marine Band" and "President's Own" are synonymous. It was at the barracks that John Philip Sousa, during the time he was the director of the Marine Band, wrote many of his immortal marches. Today's barracks Marines perform many tasks in support of our diverse missions. These include light infantry training, ceremonies, and presidential support duty to include a company of "8th and I" Marines serves at Camp David. The barracks is also home to the Marine Corps Institute - the Corps' distance training center, which is responsible for all nonresident military education programs.

EVENING PARADE

A 75-minute performance of music and precision marching, the Evening Pa-rade features "The President's Own" United States Marine Band, "The Commandant's Own" United States Marine Drum and Bugle Corps, and the Marine Corps Silent Drill Platoon. The Evening Parade is held every Friday evening from 9 May through 29 August 2008. The ceremony starts at 8:45 p.m., beginning with a concert by the "President's Own."

HOW TO MAKE PARADE RESERVATIONS

Seating for the Evening Parade requires a reservation. Guests with reservations are admitted beginning at 7:00 p.m., and should arrive no later than 8 p.m. Reservations may be made in writing, by fax, or online (for groups of 6 or less) at www.mbw.usmc.mil. To assure ample time to confirm reservations by return mail, requests should be addressed to the Protocol Officer, Marine Barracks, 8th and I Streets, S.E. Washington, D.C. 20390-5000. Requests made by fax should be faxed to the Protocol Officer at (202) 433-4076. The request should include the name of the party (either group or individual), the number of guests in the party, a complete return address, and a point of contact with a telephone number. An alternate parade date should be included in the request in case the primary date requested is unavailable.

At approximately 8:10 p.m., guests without reservations who are waiting

outside the main gate of the Barracks are offered unclaimed seats. Confirmations and gate assignments for reservation requests will be made by return mail. There are no public parking spaces available at the barracks. Guests may park at Maritime Plaza, where a free shuttle service is provided to and from the Barracks. The first shuttle departs Maritime Plaza at 7 p.m., and the last shuttle departs the Barracks at 11 p.m. For additional information, you may call the parade information line: (202) 433-6060.

SUNSET PARADE

A one-hour performance, the Sunset Parade features the music of "The Commandant's Own" United States Marine Drum and Bugle Corps, and a precision drill exhibition by the Marine Corps Silent Drill Platoon. The Sunset Parade is conducted every Tuesday evening from 3 June through 12 August 2008, beginning at 7 p.m. The Sunset Parade, held under the back-drop of the Marine Corps War Memorial, is open to the public at no charge. Reservations are not necessary. Spacious lawns provide ample room for guests to bring lawn chairs and blankets for informal viewing. There are no public parking spaces available at the memorial grounds on parade evenings. Guests may park at the Arlington National Cemetery Visitors' Center for a minimal fee. A free shuttle service is provided from the Visitors' Center from 5 to 7 p.m., before the parade and from 8 to 9 p.m. following the parade.

USMC HISTORY PROGRAM

Since September 2005, the USMC History Program has significantly changed. Formerly, the USMC historical archives, artifacts, museum operations, historical reference and writing were a single entity that reported directly to Headquarters Marine Corps. However, the creation of the new National Museum of the Marine Corps (NMMC) at Quantico, Virginia provided a unique opportunity for the Marine Corps to consolidate its Historical Program under the direct aegis of the President, Marine Corps University (MCU) and during the summer of 2005 this was accomplished.

The new NMMC, which officially opened on 10 November 2006, has greatly exceeded all expectations, easily surpassing 600,000 visitors in just its first year of operation. Phase I of the museum has been completed and planning is well underway for a Phase II expansion of USMC museum heritage exhibits and operations. The museum also conducts robust public education and outreach programs and is now responsible for a rapidly expanding USMC combat art program. The museum maintains art studios for combat artists both in the museum itself and offsite. In conjunction with the History Division, these artists, usually members of the USMC Reserve, deploy on an occasional basis with USMC forces conducting combat operations. The artists in turn return to the museum and produce combat artwork intended for potential display in the museum art gallery.



Since the mid 1990s with the establishment of the Gray Research Center at MCU, Quantico, Virginia, the capacity had existed to professionalize the history archives formerly resident in the old (pre 2005) USMC History Division. Accordingly, following the transfer of all USMC historical program operations to MCU, the Library of the Marine Corps has been given full responsibility for the maintenance of all historically related personal papers collections, current and historical USMC command chronologies, oral history archives, and other primary source material related to USMC history along with other various academically related databases and publications that the Library maintains as part of its mission. In essence, the Library of the Marine Corps now provides a fully professionalized one stop shop for researchers working on any aspect of USMC history.



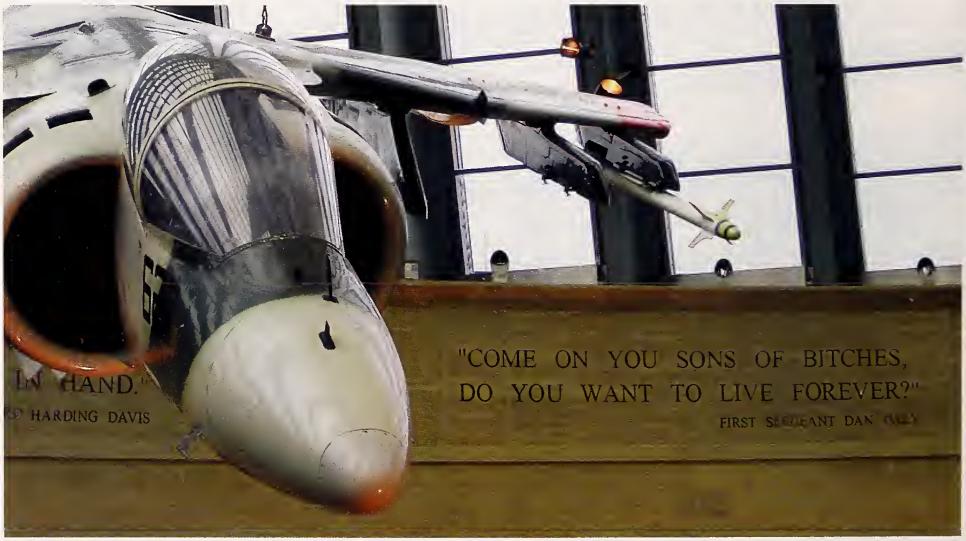
The mission of the new History Division (since 2005) is to write, document, and track the history of the Marine Corps across the entire spectrum of its organizational existence. USMC History Division historians, working within MCU and in close coordination with the NMMC and the Library of the Marine Corps, are charged with the documentary collection, writing, publication, and distribution of documents and accounts of permanent value to the history of the Corps. As such the USMC History Division is now divided into four individual and distinct supporting branches: Histories, Reference, Oral History, and Field History.

- Histories Branch preserves and presents Marine Corps history through a variety of written products including monographs, articles, and conference presentations. Present research includes production of monographs and occasional papers on the USMC and the Global War on Terror, a comprehensive history of the USMC in *Desert Shield/Desert Storm, Operation Iraqi Freedom I & II and Operation Enduring Freedom*, and traditional official histories of the USMC in the Korean War, Vietnam, and even Marines assigned to the Frigate Navy of the 19th Century.
- Historical Reference Branch maintains topical working files that cover five primary areas of interest to Marine Corps history: specific history subjects, biographical files on prominent Marines, unit, and geographic area files where Marines have operated in the past. Through these files, the branch can readily track and answer historical inquiries from a wide customer base that ranges from the office of the Commandant, members of Congress, Flag Officers, and the general public. The branch is also tasked with researching and producing Unit Lineage and Honors certificates for over 432 individual USMC commands. The program also keeps a running record of all reported USMC exercises and campaigns. The branch is also responsible for the USMC Commemorative Naming program and researches history to ensure that USMC buildings, facilities, and streets are named for deserving Marines. In sum, the branch's robust historical working

files provide an excellent and readily available trove of information on USMC historically related subjects.

- Oral History Branch conducts oral interviews with a wide variety of current and former Marines in support of research and the history writing effort of the Division as a whole. The branch takes a directed collection approach in that it focuses its effort and resources on the collection of information from past and present Commandants of the Marine Corps, senior USMC General Officers, prominent Marine combat veterans, and general veteran accounts of past wars and service in that order of priority. The branch also gathers career interviews on those Marines who shaped the setting of policy, doctrine, or had a decided effect on the USMC as an institution.
- Field History Branch is a unique entity within the History Division and manned entirely by reserve component Marines. These Marines become part of the Division's Individual Mobilization Augmentee (IMA) component and deploy on an occasional basis with USMC combat units operating abroad. Their primary mission is to collect oral history interviews from a wide variety of Marines at all levels of command and authority from MEF commanders all the way to individual Marines at the squad level. Equipped with digital recorders, cameras, and laptops, the branch is tasked with interviewing Marines recently engaged with enemy combatants and capturing historically important information while such data remains relatively fresh in the minds of those engaged and get this information to the rear as soon as possible so that relevant information is available for use as soon as possible.

In early 2008, as part of the MCU strategic plan, History Division was tasked with the establishment of a MCU Press. Since the Division already had an editing and design section for the production of its historical publications, the creation of a MCU Press to support the publication of relevant academic material made eminent sense. As such History Division has recently hired a senior editor and, in addition to its regularly produced



history publications, will now also publish a Strategic Studies quarterly journal in 2009.

During 2008, the History Division embarked on a five year plan to digitize all its reference branch material and place such documents on a shared drive with the intent to make such material readily available to any and all researchers. During the course of the year, History Division has also substantially improved its website and is available for outsider researcher use at www.history.usmc.mil. Questions on the specific programs and operations of the History Division, the National Museum of the Marine Corps or the Library of the Marine Corps can be sent respectively to charles.neimeyer@usmc.mil; lin.ezell@usmc.mil; and ramkeyce@grc.usmcu.edu.

APPENDIX B
Acronyms & Abbreviations

AAAV	Advanced Amphibious Assault Vehicle (Now called EFV)
AAO	Approved Acquisition Objective
AAP	Abbreviated Acquisition Program
AAV	Assault Amphibious Vehicle
AAW	AntiAir Warfare
AAWSH	AntiArmor Weapon System Heavy
AAWSM	Advanced Antitank Weapon System Medium
ABC/M	Activity Based Costing and Management
ABT	Air Breathing Targets
ABV	Assault Breacher Vehicle
AC2S	Airborne Command and Control System
ACADA	Automatic Chemical Agent Detector Alarm
ACAT	Acquisition Category
ACE	Aviation Combat Element
ACM	Air Contingency MAGTF
ACMC	Assistant Commandant of the Marine Corps
ACP	Aviation Continuation Pay
ACS	Advanced Countermine System
ACTD	Advanced Concept Technology Demonstration
ADCP	Air Defense Communications Platform
ADFC	Advanced Digital Fire Control System
ADM	Acquisition Decision Memorandum
ADS	Advanced Distributed Simulation
ADS	Active Denial System
AE	Assault Echelon
AFATDS	Advanced Field Artillery Tactical Data System
AFOE	Assault Followon Echelon
AFV	Armored Fighting Vehicle
AGLEP	Advanced Ground Laser Eye Protection
AGS	Advanced Gun System
AIS	Automated Information System
AIT	Automated Identification Technology
ALAM	Advanced Land Attack Missile
ALC	Area Learning Center
ALEP	Amphibious Lift Enhancement Plan
ALICE	All Purpose Lightweight Individual Carrying Equipment
AMC	Air Mobility Command
AMCM	Airborne Mine Countermeasures
AMD	Advanced Mine Detector
AMRAAM	Advanced MediumRange Air to Air Missile
ANBACIS	Automated Nuclear Biological and Chemical Information System
ANGLICO	Air Naval Gunfire Liaison Company
AO	Acquisition Objective
AoA	Analysis of Alternatives
AOR	Area of Responsibility
AP	AntiPersonnel
APECS	All Purpose Environmental Clothing System
APN	Aircraft Procurement Navy
APOBS	Antipersonnel Obstacle Breaching System
APOD/E	Aerial Port of Debarkation/ Embarkation
APS	Active Protective System
ARC	Aviation Refueling Capability
ARDEC	Army Research Development and Engineering Center
ARG	Amphibious Ready Group
ARPA	Advanced Research Projects Agency
AS	Analysis Substation
ASD / C3I	Assistant Secretary of Defense for Command, Control, Communications and Intelligence
ASPARCS	Air Surveillance and Precision Approach Radar Control System
ASUW	Antisurface Warfare
ASVAB	Armed Services Vocational Aptitude Battery
ASW	Antisubmarine Warfare
AT	Antiterrorism
AT&L	Acquisition, Technology and Logistics
AT/FP	Antiterrorism/Force Protection
ATACC	Advanced Tactical Air Command Central
ATACMS	Army Tactical Missile System
ATARS	Advanced Tactical Airborne Reconnaissance System
ATC	Air Traffic Control

ATD	Advanced Technology Development
ATF	Amphibious Task Force
ATL	Advanced Tactical Laser
ATLASS	Asset Tracking Logistics and Supply System
ATM	Asynchronous Transfer Mode
ATO	Air Tasking Order
AVDTV	Armored Vehicle Driver's Thermal Viewer
AVDVE	Armored Vehicle Driver's Vision Enhancer
AWE	Advanced Warfighting Experiment
BA	Budget Activity/Authority
BAH	Basic Allowance for Housing
BDA	Battle Damage Assessment/ Bomb Damage Assessment
BFSA	Blue Force Situational Awarness
BFT	Blue Force Tracker
BFV	Bradley Fighting Vehicle
BMAR	Backlog of Maintenance and Repair
BMDO	Ballistic Missile Defense Office
BOS	Base Operating Support
BRAC	Base Realignment and Closure
BSSG	Brigade Service Support Group
BST	Basic Skills Trainer
BTI	Base Telecommunications Infrastructure
BU	Block Upgrade
BUMED	Bureau of Medicine
BUR	Bottom Up Review
BUST	Basic Urban Skills Training
BV	Base Vehicle
C2	Command and Control
C2PC	Command and Control Personal Computer
C4I	Command, Control, Communications, Computers and Intelligence
C4I2	Command, Control, Communications, Computers, Intelligence and Interoperability
C4ISR	Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance
CA	Civil Affairs
CAC2S	Common Aviation Command and Control System
CACCTUS	Combined Arms Command and Control Training Upgrade System
CAEMS	Computer Aided Embarkation Management System
CAM	Chemical Agent Monitor
CAOCL	Center for Advanced Operational Culture Learning
CARAT	Cooperation Afloat Readiness and Training
CAST	Combined Arms Staff Trainer
CASTFOREM	Combined Arms and Support Task Force Evaluation Model
CATF	Commander Amphibious Task Force
CAX	Combined Arms Exercise
CBIRF	Chemical Biological Incident Response Force
CBIS	Chemical Biological Individual Sampler
CBMRFS	Concept Based Munitions Requirement System
CBRNE	Chemical Biological Radiological Nuclear Explosive
CBV	Combat Breacher Vehicle
CCA	Clinger Cohan Act
CCD	Charged Couple Device
CCS	COMINT Collection Subsystem
CD	Counter/Drug
CD&I	Combat Development and Integration
CDPU	Computer Data Processing Unit
CDR	Critical Design Review
CDRUSEUCOM	Commander European Command
CDS	Combat Development System
CE	Command Element
CEC	Cooperative Engagement Capability
CECM	Communications Electronic Countermeasures
CENTCOM	Central Command
CETO	Center for Emerging Threats and Opportunities
CETPS	Cooperative Engagement Transmission Processing Set
CFAC	Clear Facilities
CFC	Combined Forces Command
CG	Commanding General

CI/HUMINT	Counterintelligence/ Human Intelligence
CIA	Central Intelligence Agency
CIC	Combat Integration Capability
CID	Combat Identification
CIGSS	Common Imagery Ground/ Surface System
CINC	Commander In Chief
CCENT	Commander, Central Command
CEUR	Commander, Europe
CJFCOM	Commander, Joint Forces Command
CLANTFLT	Commander, Atlantic Fleet
CLRF	Common Laser Range Finder
CLS	Contractor Logistics Support
CMO	Civil Military Operations
CPACFLT	Commander, Pacific Fleet
CSOUTH	Commander, Southern Command
CIO	Chief Information Officer
CJCS	Chairman Joint Chiefs of Staff
CJF	Commander Joint Force
CJTF	Commander Joint Task Force
CLASS	Closed Loop Artillery Simulation System
CLAWS	Complementary Low Altitude Weapons System
CLC2S	Common Logistics Command and Control System
CM	Consequence Management
CMC	Commandant of the Marine Corps
CMV	Combat Mobility Vehicle
CNA	Computer Network Attack
CND	Computer Network Defensse
CNE	Computer Network Exploitation
C NA	Center for Naval Analyses
CNO	Chief of Naval Operations
COBRA	Coastal Battlefield Reconnaissance Analysis
COC	Combat Operations Center
COE	Common Operating Environment
COE	Concept of Employment
COMINT	Communications Intelligence
COMMARFOREUR	Commander, US Marine Forces, Europe
COMMARFORCOM	Commander, US Marine Forces, Command
COMMARFORPAC	Commander, US Marine Forces, Pacific
COMMARFORRES	Commander, US Marine Forces, Reserve
COMNAV	Communication Navigation
COMSEC	Communications Security
COMUSNAVCENT	Commander US Navy Central Command
COMUSNAVEUR	Commander US Navy Europe
COMUSNAVPAC	Commander US Navy Pacific
COMUSPACOM	Commander Pacific Command
CONDOR	Command and Control On-The-Move Network, Digital Over The Horizon Relay
CONPLAN	Contingency Plan
CONUS	Continental United States
COP	Common Operational Picture
CORM	Commission on Roles and Missions of the Armed Forces
COTS	Commercial off the Shelf
CP	Command Post
CPA	Chairman's Program Assessment
CPE	Collective Protective Environment
CPG	Commandant's Planning Guidance
CPR	Chairman's Program Review
CPU	Central Processing Unit
CPX	Command Post Exercise
CQB	Close Quarters Battle
CR	Combat Requirement
CRDEC	Chemical Research Development and Engineering Center
CROP	Common Relevant Operating Picture
CRS	Canteen Refilling System
CSAR	Combat Search and Rescue
CSG	Carrier Strike Group
CSS	Combat Service Support
CSSD	Combat Service Support Detachment
CSSE	Combat Service Support Element
CSSE SDE	Combat Service Support Element Shared Data Environment
CT	Counter Terrorism
CTI	Central Tire Inflation
CTN	Composite Tracking Network
CTOL	Conventional Take Off and Landing

CTP	Common Tactical Picture
CTT	Commanders Tactical Terminal
CV	Conventional Aircraft Carrier
CVBG	Carrier Battle Group
CVW	Carrier Air Wing
CWAR	Continuous Wave Acquisition Radar
CWT	Customer Wait Time
CY	Calendar Year
DA	Direct Action
DAB	Defense Acquisition Board
DACT	Data Automated Communications Terminal
DAMA	Demand Assigned Multiple Access
DARP	Defense Airborne Reconnaissance Program
DARPA	Defense Advanced Research Projects Agency
DART	Defense Assistance Response Team
DASC	Direct Air Support Center
DAWMS	Deep Attack Weapons Mix Study
DBBL	Dismounted Battlespace Battle Lab
DBOF	Defense Business Operations Fund
DCGS	Distribute Common Ground Systems
DC, I&L	Deputy Commandant for Installations and Logistics
DCP	Defense Cryptologic Program
DCU	Dynamic Component Upgrade
DDG	Guided Missile Destroyer
DDS	Data Distribution System
DEP	Delayed Entry Program
DEPTEMPO	Deployment Tempo
DF	Direction Finding
DFT	Deployments for Training
DGIAP	Defense General Intelligence and Applications Program
DHP	Defense Health Care Program
DHS	Defense HUMINT Service
DIA	Defense Intelligence Agency
DICP	Defense Intelligence Counterdrug Program
DIMAP	Defense Imagery and Mapping Program
DIS	Distributed Interactive Simulation
DISA	Defense Information Systems Agency
DISTP	Defense Special Technology Program
DITP	Defense Intelligence Tactical Program
DJCIP	Defense Joint Counterintelligence Program
DL	Distance Learning
DLC	Distance Learning Center
DLI	Defense Language Institute
DMRD	Defense Management Review Decision
DMS	Defense Messaging System
DMSO	Defense Modeling and Simulation Office
DMSS	Defense Medical Surveillance System
DOA	Days of Ammunition
DoD	Department of Defense
DoN	Department of the Navy
DOS	Days of Supply
DoS	Department of State
DOTMLPF	Doctrine, Organization, Training, Material, Leadership & Education, Personnel, and Facilities
DPG	Defense Planning Guidance
DPP	Defense Program Projection
DPRB	Defense Planning and Resources Board
DR	Digital Radiography
DSCS	Defense Satellite Communications System
DSN	Defense Switched Network
DSRP	Defense Space Reconnaissance Program
DST	Decision Support Tools
DT	Developmental Test
DTC	Digital Technical Control
DTS	Defense Transportation System
DWTS PIP	Digital Wideband Transmission System Product Improvement Program
EA	Electronic Attack
EAF	Expeditionary Air Field
EBFL	Extended Boom Forklift
EDM	Engineering Development Model
EFSS	Expeditionary Fire Support System
EFV	Expeditionary Fighting Vehicle (Formerly AAAV)

EHF	Extremely High Frequency
ELB	Extended Littoral Battlespace
ELINT	Electronics Intelligence
EMAIL	Electronic Mail
EMD	Engineering and Manufacturing Development
EMW	Expeditionary Maneuver Warfare
ENBC	Enhanced NBC Capability
EO	Electro Optical
EOB	Electronic Order of Battle/ Enemy Order of Battle
EOD	Explosive Ordnance and Disposal
EOM	Echelon of Maintenance
EP	Electronic Protection
EPLRS	Enhanced Position Location Reporting System
EPUU	Enhanced PLRS User Units
ERGM	Extended Range Guided Munitions
ERIP	Engine Reliability Improvement Program
EROWPU	Enhanced Reverse Osmosis Water Purification Unit
ERP	Engine Reliability Program
ES	Equipment Suit
ESF	Expeditionary Strike Force
ESG	Expeditionary Strike Group
ESP	Extended Service Program
ESS	Electronics Intelligence (ELINT) Support System
ETSS	Extended Training Service Specialist
EUL	Economic Useful Life
EUT	End User Terminal
EW	Electronic Warfare
FAC	Forward Air Controller
FARP	Forward Arming Refueling Point
FASCAM	Family of Scatterable Mines
FAST	Fleet Antiterrorism Security Team
FATS	Fire Arms Training System
FAV	Fast Attack Vehicle
FCIP	Foreign Counterintelligence Program
FDC	Fire Direction Center
FDNF	Forward Deployed Naval Forces
FDS	Field Development System
FEA	Front End Analysis
FEO	Forcible Entry Operations
FEP	Firepower Enhancement Program
FEX	Field Exercise
FH	Frequency Hopping
FHMC	Family Housing Marine Corps
FIE	Fly in Echelon
FIIU	Force Imagery Interpretation Unit
FIM	Family of Improved Mortars
FIPP	Final Integration and Proveout Phase
FLC	Functional Learning Center
FLPP	Foreign Language Proficiency Pay
FM	Frequency Modulation
FMF	Fleet Marine Force
FO	Forward Observer
FOB	Forward Operating Base
FOC	Full Operational Capability
FOF	Floating Offshore Facility
FOM	Family of Munitions
FoS	Family of Systems
FOTS	Follow on to Shoulder Launched Multipurpose Assault Weapon (SMAW)
FOTT	Follow-Onto-TOW
FOV	Family of Vehicles
FP	Force Protection
FPLIF	Field Pack Large with Internal Frame
FPU	Front Power Unit
FRP	Fleet Response Plan
FRP	Full Rate Production
FRSS	Forward Resuscitative Surgery System
FSC2S	Fire Support Command and Control System
FSCC	Fire Support Coordination Center
FSED	Full Scale Engineering Development
FSRM	Facilities Sustainment Restoration and Modernization
FSSG	Force Service Support Group
FTE	Full Time Equivalent
FTL	Far Target Location
FTS	Full Time Support
FTSS	Family of Tactical Soft Shelters
FUE	First Units Equipped
FY	Fiscal Year
FYDP	Future Year Defense Plan
FYEP	Five Year Experimentation Plan

GBS	Global Broadcast Service
GCCS	Global Command and Control System
GCE	Ground Combat Element
GCS	Ground Control Station
GCSS	Global Combat Support System
GCSS-MC	Global Combat Support System-Marine Corps
GDIP	General Defense Intelligence Program
GIG	Global Information Grid
GLPS	Gun Laying and Positioning System
GME	Garrison Mobile Equipment
GMF	Ground Mobile Forces
GOPLAT	Gas and Oil Platform
GOTS	Government off the Shelf
GP	General Purpose
GPR	Ground Processing Requirement
GPS	Global Positioning System
GTN	Global Transportation Network
GWOT	Global War on Terrorism
HARM	High Speed AntiRadiation Missile
HAW	Heavy Antiarmor Weapon
HE	High Explosive
HEMTT	Heavy Expanded Mobility Tactical Truck
HERCULES	Heavy Equipment Recovery Combat Utility Lift and Evacuation System
HF	High Frequency
HHMMWV	Heavy Variant High Mobility Multipurpose Wheeled Vehicle
HIMARS	High Mobility Artillery Rocket System
HLA	High Level Architecture
HLCAC	Heavy Lift Landing Craft Air Cushion
HMD	High Mobility Downsize
HMH	Marine Heavy Helicopter Squadron
HMLA	Marine Light Attack Helicopter Squadron
HMM	Marine Medium Helicopter Squadron
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HMX	Marine Helicopter Squadron 1
HNS	Host Nation Support
HQMC	Headquarters, Marine Corps
HSV	High Speed Vessel
HUD	Headsup Display
HUMINT	Human Source Intelligence
HWM	High Water Mark
HWTS	Heavy Weapons Thermal Sight
I2	Image Intensification
IA	Information Assurance
IAC	Intelligence Analysis Center
IAS	Intelligence Analysis System
ICAD	Individual Chemical Agent Detector
ICCE	Individual Combat Clothing and Equipment
IDASC	Improved Direct Air Support Center
IDIQ	Indefinite Duration, Indefinite Quantity Contract
IED	Improvised Explosive Device
IFAV	Interim Fast Attack Vehicle
IFF	Identification Friend or Foe
IHR	InExtremis Hostage Rescue
IICS	Integrated Infantry Combat System
ILBE	Improved Load Bearing Equipment
ILC	Integrated Logistics Capability
IMA	Individual Mobilization Augmentees
IMI	Interactive Multimedia Instruction
IMINT	Imagery Intelligence
INFOSEC	Information Security
INRMP	Integrated Natural Resource Management Plans
INS	Inertial Navigation System
INTEL	Intelligence
IO	Information Operations
IOC	Initial Operational Capability
IOT	Initial Operational Test
IOT&E	Initial Operational Test and Evaluation
IOW	Intelligence Operations Workstations
IPT	Integrated Product/Process Team
IR	Infrared
IR3B	Integrated Resources and Requirements Review Board
IRAM	Improved Reliability and Maintainability
IROAN	Inspect and Repair Only as Necessary
IRR	Individual Ready Reserve

IRV	Improved Recovery Vehicle
IS	Information Systems
ISDN	Integrated Services Digital Network
ISMTE	Indoor Simulated Marksmanship Trainer Enhanced
ISMT	Indoor Simulated Marksmanship Trainer
ISO	International Organization for Standardization
ISP	Internet Service Provider
ISR	Intelligence, Surveillance and Reconnaissance
ISSA	InterService Support Agreement
IT	Information Technology
ITAS	Improved Target Acquisition System
ITV	Internally Transportable Vehicle
IWAR	Integrated Warfare Architecture
JAC	Joint Analysis Center
JBPDS	Joint Biological Point Detection System
JCAD	Joint Chemical Agent Detector
JCAS	Joint Close Air Support
JCATS	Joint Conflict and Tactical Simulation
JCD&E	Joint Concept Development and Experimentation
JCIDS	Joint Capabilities Integration and Development System
JCS	Joint Chiefs of Staff
JDAM	Joint Direct Attack Munitions
JFACC	Joint Force Air Component Commander
JFC	Joint Force Commander
JFCOM	Joint Forces Command
JFLCC	Joint Force Land Component Commander
JFMCC	Joint Force Maritime Component Commander
JHSV	Joint High Speed Vessel
JI&I	Joint Integration and Interoperability
JIATFE	Joint Interagency Task Force East
JIATFW	Joint Interagency Task Force West
JIC	Joint Intelligence Center
JIPT	Joint Integrated Product Team
JLUS	Joint Land Use Studies
JM	JTIDS Module
JMAC	Joint Maritime Assault Connector
JMA/SA	Joint Mission Area/Support Area
JMAA /JMNA	Joint Mission Area Analysis / Joint Mission Need Analysis
JMASS	Joint Modeling and Simulation System
JMCIS UB	Joint Maritime Command Information System Unified Build
JMIP	Joint Military Intelligence Program
JNLWD	Joint NonLethal Weapons Directorate
JNLWP	Joint NonLethal Weapons Program
JNMS	Joint Network Management System
JOA	Joint Operations Area
JOPES	Joint Operation Planning and Execution System
JOTS	Joint Operational Tactical System
JPOBIO	Joint Program Office for Biological Defense
JROC	Joint Requirements Oversight Council
JSCP	Joint Strategic Capabilities Plan
JSEAD	Joint Suppression of Enemy Air Defenses
JSF	Joint Strike Fighter
JSFXD	Joint Service Fixed Site Decontamination
JSIMS	Joint Simulation System
JSLIST	Joint Service Lightweight Integrated Suit Technology
JSLNBCRS	Joint Service Light NBC Reconnaissance System
JSLSCAD	Joint Services Lightweight Chemical Standoff Agent Detector
JSOC	Joint Special Operations Command
JSOW	Joint Standoff Weapon
JSTARS	Joint Surveillance Target Attack Radar System
JTF	Joint Task Force
JTF HQ	Joint Task Force Headquarters
JTIDS	Joint Tactical Information Distribution System
JTRS	Joint Tactical Radio System
JUW	Joint Urban Warfare
JWARN	Joint Warning and Reporting Network
JWARS	Joint Warfare System
JWCA	Joint Warfighting Capability Assessment
JWFC	Joint Warfighting Center

JWID	Joint Warrior Interoperability Demonstrations
JWTC	Joint Warfare Training Center/ Jungle Warfare Training Center
KPP	Key Performance Parameter
LAAD	Low Altitude Air Defense
LAAD	Low Altitude Air Defense Battalion
LAN	Local Area Network
LAR	Light Armored Reconnaissance
LAV	Light Armored Vehicle
LAV SLEP	LAV Service Life Extension Program
LAVAD	Light Armored Vehicle Air Defense
LAVM	Light Armored Vehicle Mortar
LAVFIST	LAV Full Crew Interactive Simulator Trainer
LCAC	Landing Craft Air Cushion
LCM	Life Cycle Management
LCU(R)	Landing Craft Utility Replacement
LEWDD	Lightweight Early Warning Detection Device
LHA	Amphibious Assault Ship General Purpose
LHA (R)	Amphibious Assaut Ship Replacement
LHD	Amphibious Assault Ship, Multipurpose
LIC	Low Intensity Conflict
LKA	Amphibious Stores Ship
LLDR	Lightweight Laser Designator Rangefinder
LLI	Long Lead Item
LMCC	Logistics Movement Control Center
LME	Lightweight Maintenance Enclosure
LMR	Land Mobile Radio
LMRS	Longterm Mine Reconnaissance System
LMS	Lightweight Multipurpose Shelter
LMSR	Large, Medium-Speed, Roll-on/Roll-off (ship)
LMST	Lightweight Multiband Satellite Terminals
LNBCRS	Lightweight Nuclear Biological and Chemical Reconnaissance System
LOE	Limited Objective Experiment
LOGAIS	Logistics Automated Information System
LP/OP	Listening Post/Observation Post
LPD	Amphibious Transport Dock [Ship]
LPH	Amphibious Assault Ship Helicopter
LPP	Littoral Penetration Point
LRA	Local Registration Authority
LRC	Learning Resource Center
LRIP	Low Rate Initial Production
LRLAP	Long Range Land Attack Projectile
LSD	Landing Ship Dock
LST	Laser Spot Trackers/ Landing Ship Tank/ Troop
LTA	Launch Tube Assembly
LTVR	Light Tactical Vehicle Replacement
LVS	Logistics Vehicle System
LW155	Lightweight 155mm Howitzer
LWH	Lightweight Helmet
M&S	Modeling & Simulation
MAA	Mission Area Analysis
MACCS	Marine Air Command and Control System
MACE	MEF Augmentation Command Element
MACG	Marine Air Control Group
MACP	Marine Aviation Campaign Plan
MACS	Marine Air Control Squadron
MAG	Marine Aircraft Group
MAGTFTC	Marine Corps Air Ground Task Force Training Command
MAGIS	Marine Air Ground Intelligence System
MAGTF	Marine Air Ground Task Force
MALS	Marine Aviation Logistics Squadron
MARCENT	Marine Forces Central Command
MARCORMATCOM	Marine Corps Material Command
MARCORSYSCOM	Marine Corps System Command
MARDIV	Marine Division
MARFOR	Marine Forces
MARFORCOM	Marine Forces Command
MARFOREUR	Marine Forces Europe
MARFORPAC	Marine Forces Pacific
MARFORRES	Marine Forces Reserve
MARFORSOUTH	Marine Forces South
MARINENET	Marine Corps Learning Network
MARS	Marine Aviation Requirements Study

MASINT	Measurement and Signature Intelligence
MATCALS	Marine Air Traffic Control and Landing System
MCATCD	Marine Corps Air Traffic Control Detachment
MAW	Marine Aircraft Wing
MAW	Medium AntiArmor Weapon
MAWTS1	Marine Aviation Weapons and Tactics Squadron One
MBC	Mortar Ballistic Computer
Mbps	Megabits per second
MBST	Marine Battle Skills Training
MBT	Main Battle Tank
MCARMS	Marine Corps Ammunition Requirements Management System
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCCDC	Marine Corps Combat Development Command
MCCPIP	Marine Corps Continuous Process Improvement Program
MCCS	Marine Corps Community Services
MCCUU	Marine Corps Combat Utility Uniform
MCDN	Marine Corps Data Network
MCEN	Marine Corps Enterprise Network
MCFSS	Marine Corps Fire Support System
MCHS	Marine Corps Common Hardware Suite
MCI	Marine Corps Institute
MCIA	Marine Corps Intelligence Activity
MCISU	Marine Corps Imagery Support Unit
MCLCP	Marine Corps Logistics Campaign Plan
MCM	Mine Countermeasures
MCMAP	Marine Corps Martial Arts Program
MCMP	Marine Corps Master Plan
MCMSO	Marine Corps Modeling and Simulation Management Office
MCMWTC	Marine Corps Mountain Warfare Training Center
MCNR	Military Construction Navy Reserve
MCON	Military Construction
MCOTEA	Marine Corps Operational Test and Evaluation Activity
MCP	Mission Capability Package
MCPON	Master Chief Petty Officer of the Navy
MCPP	Marine Corps Planning Process
MCRC	Marine Corps Recruiting Command
MCSF	Marine Corps Security Forces
MCSSC2	Marine Combat Service Support Command and Control
MCT	Marine Combat Training
MCTEEP	Marine Corps Training Exercise Employment Plan
MCTSSA	Marine Corps Tactical System Support Activity
MCWL	Marine Corps Warfighting Laboratory
MDA	Milestone Decision Authority
MDC	Material Distribution Center
MDSS	MAGTF Deployment Support System
MEB	Marine Expeditionary Brigade
MEB (AE)	Marine Expeditionary Brigade Assault Echelon
MEB (AT)	Marine Expeditionary Brigade (Antiterrorism)
MCCES	Marine Corps Communications and Electronics School
MEF	Marine Expeditionary Force
MEFFV	MAGTF Expeditionary Family of Fighting Vehicles
MEP	Mobile Electric Power
MEP	Marine Enhancement Program
MEU	Marine Expeditionary Unit
MEU (SOC)	Marine Expeditionary Unit (Special Operations Capable)
MEWSS	Mobile Electronic Warfare Support System
MEWSSPIP	Mobile Electronic Warfare Support System Product Improvement Program
MFK	Mobile Field Kitchen
MFOM	MLRS Family of Munitions
MHE	Materials Handling Equipment
Mhz	Megahertz
MIA	Missing In Action
MIIDS	Military Integrated Intelligence Data System
MILCON	Military Construction Navy
MILDEC	Military Deception
MILES	Multiple Integrated Laser Engagement System

MILSTAR	Military Strategic and Tactical Relay
MIO	Maritime Interdiction Operations
MLA	Medium Lift Alternative
MLG	Marine Logistics Group
MLP	Mobile Landing Platform (ship)
MLRS	Multiple Launch Rocket System
MLS	Marine Load System
MMS	Marine Mammal System
MNS	Mission Needs Statement
MOA	Memorandum of Agreement
MOL	Marine on Line
MOLLE	Modular Lightweight Load Carrying Equipment
MOOTW	Military Operations Other than War
MOPP	Mission Oriented Protective Posture
MOS	Military Occupational Specialty
MOU	Memorandum of Understanding
MOUT	Military Operations in Urban Terrain
MPF	Maritime Prepositioning Force
MPF (E)	Maritime Prepositioning Force (Enhanced)
MPF (F)	Maritime Prepositioning Force (Future)
MPIM	MultiPurpose Individual Munition
MPMC	Military Personnel Marine Corps
MPS	Maritime Prepositioning Ships
MPSRON	Maritime Prepositioning Ships Squadron
MRAP	Mine Resistant Ambush Protected
MRB	MROC Review Board
MROC	Marine Requirements Oversight Council
MRP	Maintenance of Real Property
MRRS	MultiRole Radar System
MRS	Mobility Requirements Study
MSBL	MAGTF Software Baseline
MSC	Military Sealift Command
MSC	Major Subordinate Command
MSE	Major Subordinate Element
MSG	Marine Security Guard Battalion
MSTP	MAGTF Staff Training Program
MTACCS	Marine Tactical Command and Control System
MTID	MILES Target Interface Device
MTVR	Medium Tactical Vehicle Replacement
MTWS	MAGTF Warfare Simulation
MULE	Modular Universal Laser Equipment
MWS	Modular Weapon System
MWSG	Marine Wing Support Group
MWSS	Marine Wing Support Squadrons
MWTS	Medium Weapon Thermal Sight
NAF	Non–Appropriated Funds
NALMEB	Norway Air Landed MEB
NAPDD	Non–Acquisition Category Program Definition Document
NAS	Naval Air Station
NATO	North Atlantic Treaty Organization
NAVFLIR	Navigation Forward Looking Infrared
NBC	Nuclear, Biological and Chemical
NCO	Noncommissioned Officer
NCSE (D)	Downsized Enhanced Net Control Station
NDI	Non–Developmental Item
NDP	National Defense Panel
NDSS	Network Data Storage Solution
NEF	Naval Expeditionary Force
NEO	Noncombatant Evacuation Operations
NESEA	Naval Electronics System Engineering Activity
NFCS	Naval Fires Control System
NFIP	National Foreign Intelligence Program
NIMA	National Imagery and Mapping Agency
NIPRNET	Nonsecure Internet Protocol Routed Network
NLW	Non–Lethal Weapons
NM	Nautical Miles
NMCB/R	Naval Mobile Construction Battalion/ Regiment
NMCI	Navy Marine Corps Intranet
NMS	National Military Strategy
NOS	Network Operating System
NRL	Naval Research Lab
NRT	Near Real Time
NSE	Naval Support Equipment/ Element
NSFS	Naval Surface Fire Support
NTCSA	Naval Tactical Command System Afloat

NTIS	Night Thermal Imagery System
NTS	Night Targeting System
NVG	Night Vision Goggles
O&MMC	Operation and Maintenance Marine Corps
O&MMCR	Operation and Maintenance Marine Corps Reserve
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OEO	Other Expeditionary Operations
OMCM	Organic Mine Countermeasure
OMFTS	Operational Maneuver From the Sea
ONE	Operation Noble Eagle
ONR	Office of Naval Research
ONW	Operation Northern Watch
OODA	Observe, Orient, Decide, Act
OOTW	Operations Other Than War
OPEVAL	Operational Evaluation
OPLAN	Operation Plan
OPP	Offload Preparation Party
OPSEC	Operations Security
OPTEMPO	Operational Tempo
ORD	Operational Requirements Document
OSA	Operational Support Airlift
OSD	Office of the Secretary of Defense
OSW	Operation Southern Watch
OT&E	Operational Test and Evaluation
OTEIP	Overseas Tour Extension Incentive Program
OTH	Over–the–Horizon
OTV	Outer Tactical Vest
PA	Public Affairs
PAA	Primary Aircraft Authorization
PACOM	Pacific Command
PANMC	Procurement, Ammunition Navy and Marine Corps
PASGT	Personal Armor System Ground Troops
PCS	Permanent Change of Station
PDEA	Power Driven Excavating Arm
PDR	Preliminary Design Review
PDRR	Program Definition and Risk Reduction
PEO	Program Execution Officer
PERSTEMPO	Personnel Tempo
PGM	Precision Guided Munitions
PGS	Precision Gunnery System
PGTS	Precision Gunnery Training System
PIP	Product Improvement Program
PITS	Portable Infantry Target System
PKI	Public Key Infrastructure
PLGSR	Precision Lightweight Global Positioning System Receiver
PLRS	Position Location Reporting System
PM	Program Manager
PMC	Procurement Marine Corps
PME	Professional Military Education
POD	Port of Debarkation
POE	Port of Embarkation
POM	Program Objective Memorandum
POW	Prisoner of War
PP&O	Plans, Policies and Operations
PPBES	Planning, Programming, Budgeting, and Execution System
PPV	Public/Private Ventures
P&R	Programs and Resources
PR	Personnel Recovery
PRG	Program Review Group
PSD	Propulsion System Demonstrator
PSYOP	Psychological Operations
PWRMS	Prepositioned War Reserve Material Stocks
QDR	Quadrennial Defense Review
QoL	Quality of Life
QUADCON	Quadruple Containers
R&D	Research and Development
R2D2	Radio Reconnaissance Distribution Device
R2P2	Rapid Response Planning Process
R3B	Resources and Requirements Review Board
RAC	Riverine Assault Craft
RAM	Reliability, Availability and Maintainability
RAM/RS	Reliability, Availability and Maintainability/Rebuild to Standard
RAMD	Reliability, Availability, Maintainability and Durability
RCT	Repair Cycle Time
RDK	Rapid Deployment Kitchen
RDT&E	Research Development Test and Evaluation
RETS	Remote Engagement Target System

RF	Radio Frequency
RFP	Request for Proposal
RHC	Ruggedized Handheld Computer
RIS	Range Instrumentation System
RMHS	Remote Mine Hunting System
RMS	Remote Mine Hunting System
RO/RO	Rollon/Rolloff
ROC	Required Operation Capability
ROE	Rules of Engagement
ROWPU	Reserve Osmosis Water Purification Unit
RPMC	Reserve Personnel Marine Corps
RRC	Rigid Raiding Craft
RSO&I	Reception, Staging, Onward Movement and Integration
S&T	Science and Technology
SAG	Surface Action Group
SAPI	Small Arms Protective Insert
SAR	Search and Rescue
SATCOM	Satellite Communications
SC	Security Cooperation
SCG	Security Cooperation Guidance
SCN	Shipbuilding and Conversion Navy
SCT	Smart Card Technology
SDD	System Development and Demonstration
SDE	Shared Data Environment
SDS	Sorbent Decontamination System
SE	Supporting Establishment
SEAL	Sea, Air, Land (Military Special Force Member)
SECREP	Secondary Repairables
SEP	Soldier Enhancement Program
SHADE	Shared Data Environment
SHF	Super High Frequency
SHORAD	Short Range Air Defense
SIDS	Secondary Imagery Dissemination System
SIE	Systems Integration Environment
SIGINT	Signals Intelligence
SINCGARS	Single Channel Ground and Airborne Radio System
SIPRNET	Secret Internet Protocol Routed Network
SLEP	Service Life Extension Program
SLOC	Sea Lines of Communication
SLRP	Survey Liaison & Reconnaissance Party
SMARTT	Secure Mobile Anti–Jam Reliable Tactical Terminal
SMAW	Shoulder Launched Multipurpose Assault Weapon
SMCM	Surface Mine Countermeasures
SMCR	Selected Marine Corps Reserve
SMMC	Sergeant Major of the Marine Corps
SNCO	Staff Noncommissioned Officer
SOA	Sustained Operations Ashore
SOC	Special Operations Capable
SOI	School of Infantry
SONET	Synchronization Optical Network
SOUTHCOM	Southern Command
SPACECOM	Space Command
SPAWAR	Space and Naval Warfare System Command
SPMAGTF	Special Purpose Marine AirGround Task Force
SPMAGTF(X)	Special Purpose MAGTF (Experimental)
SPOD/E	Surface Port of Debarkation/ Embarkation
SRAW	Short Range Antitank Weapon
SRB	Selective Reenlistment Bonus
SRR	Strategic and Residual Requirement
SRU	Shop Replacement Units
SSCC	SPAWAR Systems Center Charleston
ST	Science and Technology
STAMIS	Standard Management Information Systems
START	SHF Tri–Band Advanced Range Extension Terminal
STOM	Ship to Objective Maneuver
STOVL	Short Takeoff and Vertical Landing
STRATCOM	Strategic Command
SUBD	Small Unit Biological Detector
SURC	Small Unit Riverine Craft
SURSS	Small Unit Remote Scouting System
SWA	Southwest Asia
SWMCM	Shallow Water Mine Countermeasures
SZ	Surf Zone
T/M/S	Type/Model/Series
TacAir	Tactical Aviation

TACC	Tactical Air Command Center
TACO	Tactical Communications
TACOM	US Army Tank Automotive & Armaments Command
TAD	Towed Artillery Digitization
TAD	Temporary Additional Duty
TAOC	Tactical Air Operations Center
TAOM	Tactical Air Operations Module
T-AKE	Dry Cargo / Ammunition Ship
TAVB	Aviation Logistics Support Ship
TBD	To Be Determined
TBM	Tactical Ballistic Missile
TBMCS	Theater Battle Management Core System
TBMD	Theater Ballistic Missile Defense
TCAC	Technical Control and Analysis Center
TCC	Tactical Communications Center
TCIM	Tactical Communications Interface Module
TCO	Tactical Combat Operations
TCS	Tactical Control Station
TDCP	Tactical Data Communications Processor
TDMA	Time Division Multiple Access
TDN	Tactical Data Network
TDS	Tactical Data System
TECOM	Training and Education Command
TEG	Tactical Exploitation Group
TEMP	Test and Evaluation Master Plan
TEPOP	Training and Education Point of Presence
TERPES	Tactical Electronic Reconnaissance Processing and Evaluation System
TESS	Tactical Engagement Simulation System
TETS	Third Echelon Test Sets
TFDSS	Total Force Decision Support System
TFSMS	Total Force Structure Management System
THS	Target Handoff Subsystem
TIM	Toxic Industrial Materials
TLAM	Tomahawk Land Attack Missile
TLDHS	Target Location Designation and Handoff System
TMIPM	Theater Medical Information Program (Maritime)
TOA	Total Obligation Authority
TOR	Terms of Reference
TOW	Tube Launched Optically Tracked Wire Guided Missile
TPC	Topographic Production Capability
TPCS	Team Portable Collection System
TPFDD/L	Time Phased Force Deployment Data/List
TQG	Tactical Quiet Generator
TRAM	Tractor Rubbertired Articulated Steering Multipurpose
TRANSCOM	Transportation Command
TRAP	Tactical Recovery of Aircraft and Personnel
TRE	Tactical Receive Equipment
TRHS	Tray Ration Heating System
TRITAC	TriService Tactical Communications
TRSS	Tactical Remote Sensor System
TSOC	Theater Special Operations Commands
TSOF	Technical Support of Operating Forces
TSS	Target Sight System
TTP	Tactics, Techniques and Procedures
TUGV	Tactical Unmanned Ground Vehicles
TUVM	Tactical Unmanned Vehicle Medium
TWGSS	Tank Weapon Gunnery Simulator System
TWS	Thermal Weapons Sight
TWSEAS	Tactical Warfare Simulation Evaluation & Analysis System
UAV	Unmanned Aerial Vehicle
UCP	Unified Command Plan
UDP	Unit Deployment Program
UGV	Unmanned Ground Vehicle
UHF	Ultra High Frequency
ULCS	Unit Level Circuit Switch
UMCM	Undersea Mine Countermeasures
UNC	United Nations Command (Korea)
UNITAS	An annual US Southern Command–sponsored series of exercises in South America
UNMIH	United Nations Mission in Haiti
UNOSOM	United Nations Operations Somalia
UNPROFOR	United Nations Protection Force (Bosnia)

USCENTCOM	United States Central Command
USEUCOM	United States European Command
USJFC	United States Joint Forces Command
USMARCENT	US Marine Corps Forces, Central Command
USMARFORK	US Marine Corps Forces, Korea
USMC	United States Marine Corps
USPACOM	United States Pacific Command
USSOCOM	US Special Operations Command
USSOUTHCOM	United States Southern Command
UUV	Unmanned Underwater Vehicle
V/STOL	Vertical/Short Takeoff and Landing
VHF	Very High Frequency
VMA	Marine Attack Squadron
VMAQ	Marine Tactical Electronic Warfare Squadron
VMFA	Marine Fighter/Attack Squadron
VMFA(AW)	Marine All Weather Fighter/Attack Squadron
VMGR	Marine Aerial Refuel and Transport Squadron
VMM	Marine Medium Tiltrotor Squadron
VMMT	Marine Medium Tiltrotor Training Squadron
VMU	Marine Unmanned Aerial Vehicle Squadron
VSW	Very Shallow Water
VTOL	Vertical Takeoff and Landing
VVT	Video Teletraining
WAN	Wide Area Network
WHNS	Wartime Host Nation Support
WMD	Weapons of Mass Destruction
WNW	Wideband Networking Waveform
WPN	Weapons Procurement Navy
WRMR	War Reserve Munitions Requirement
WTI	Weapons and Tactics Instructor

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